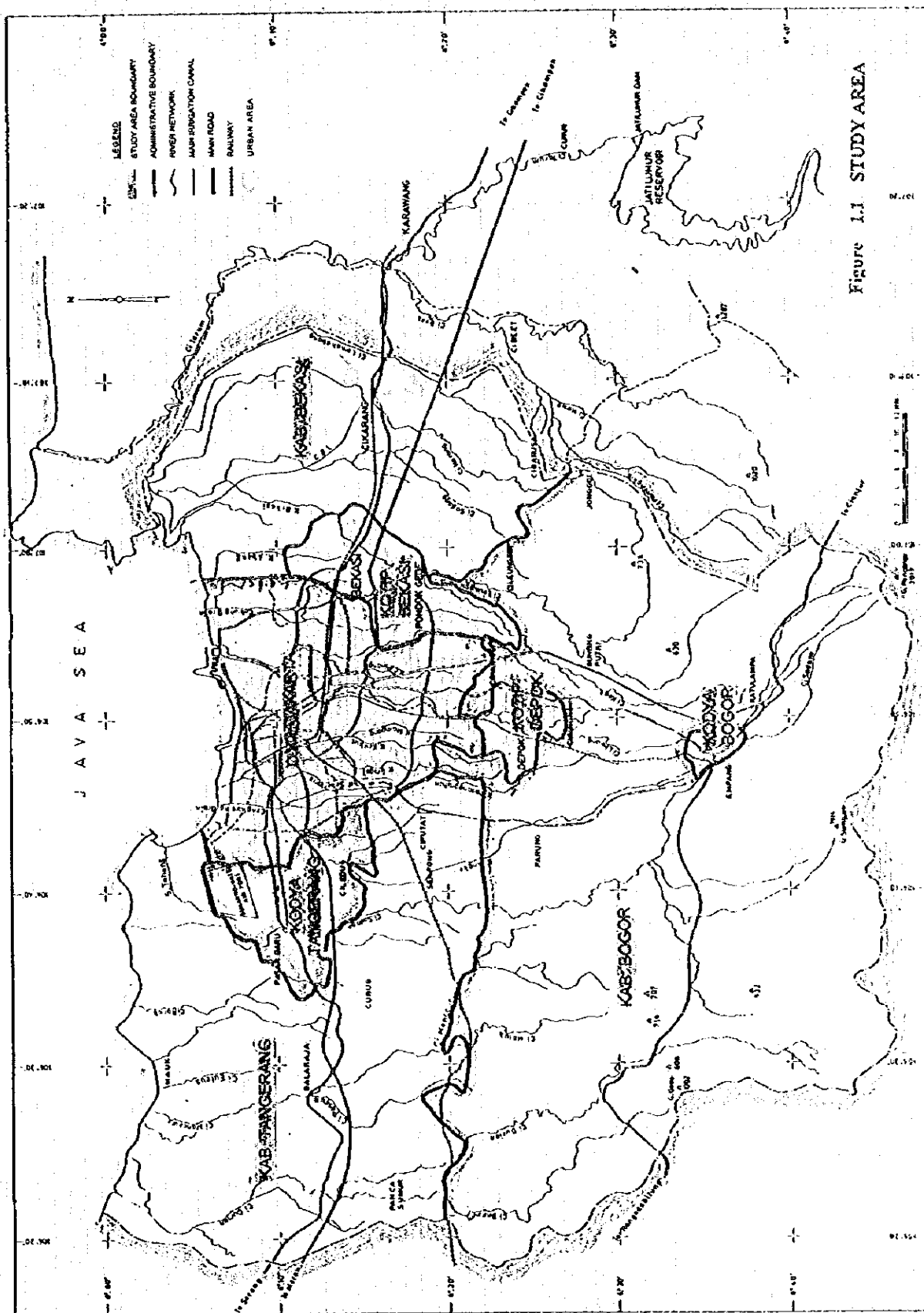
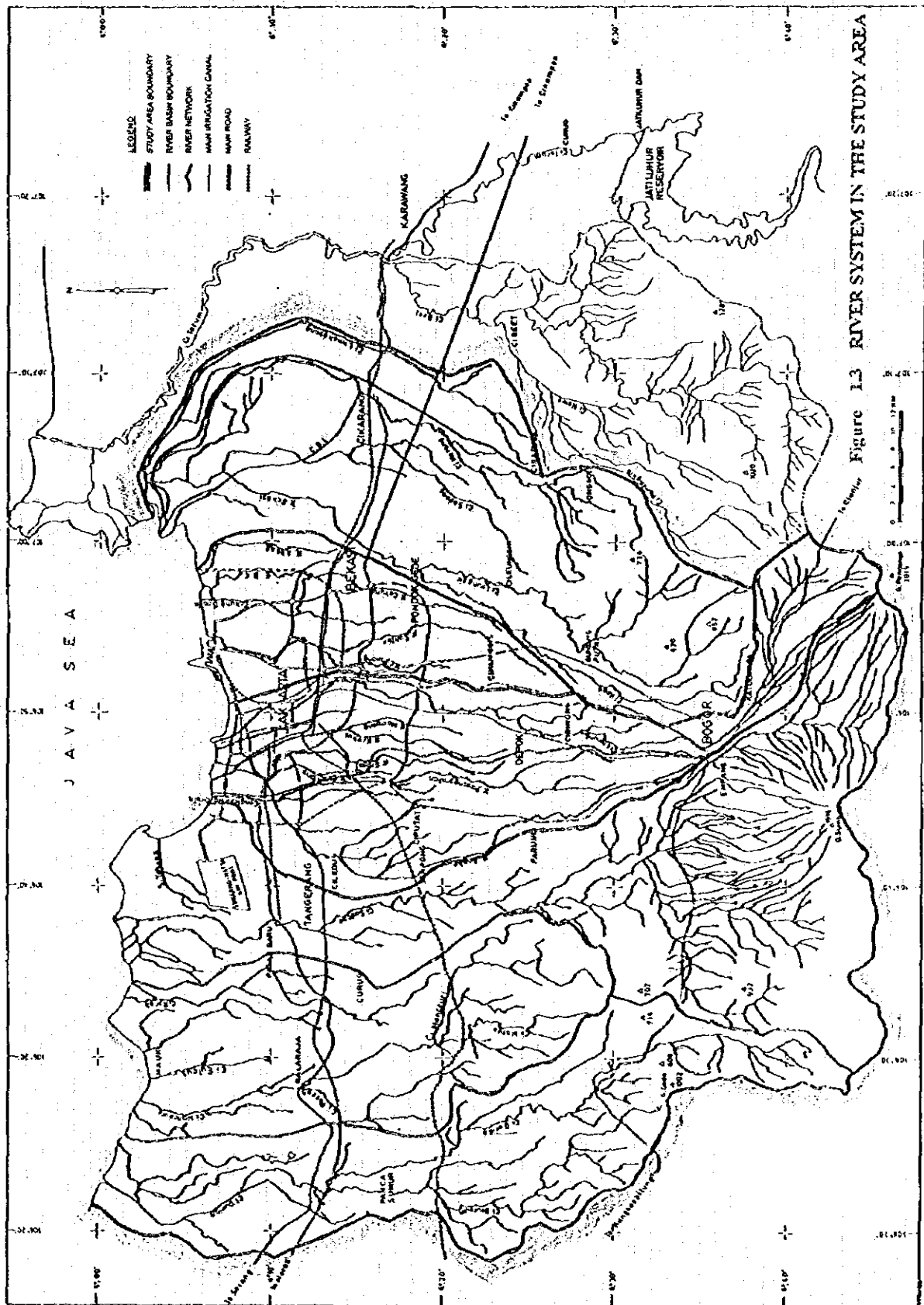


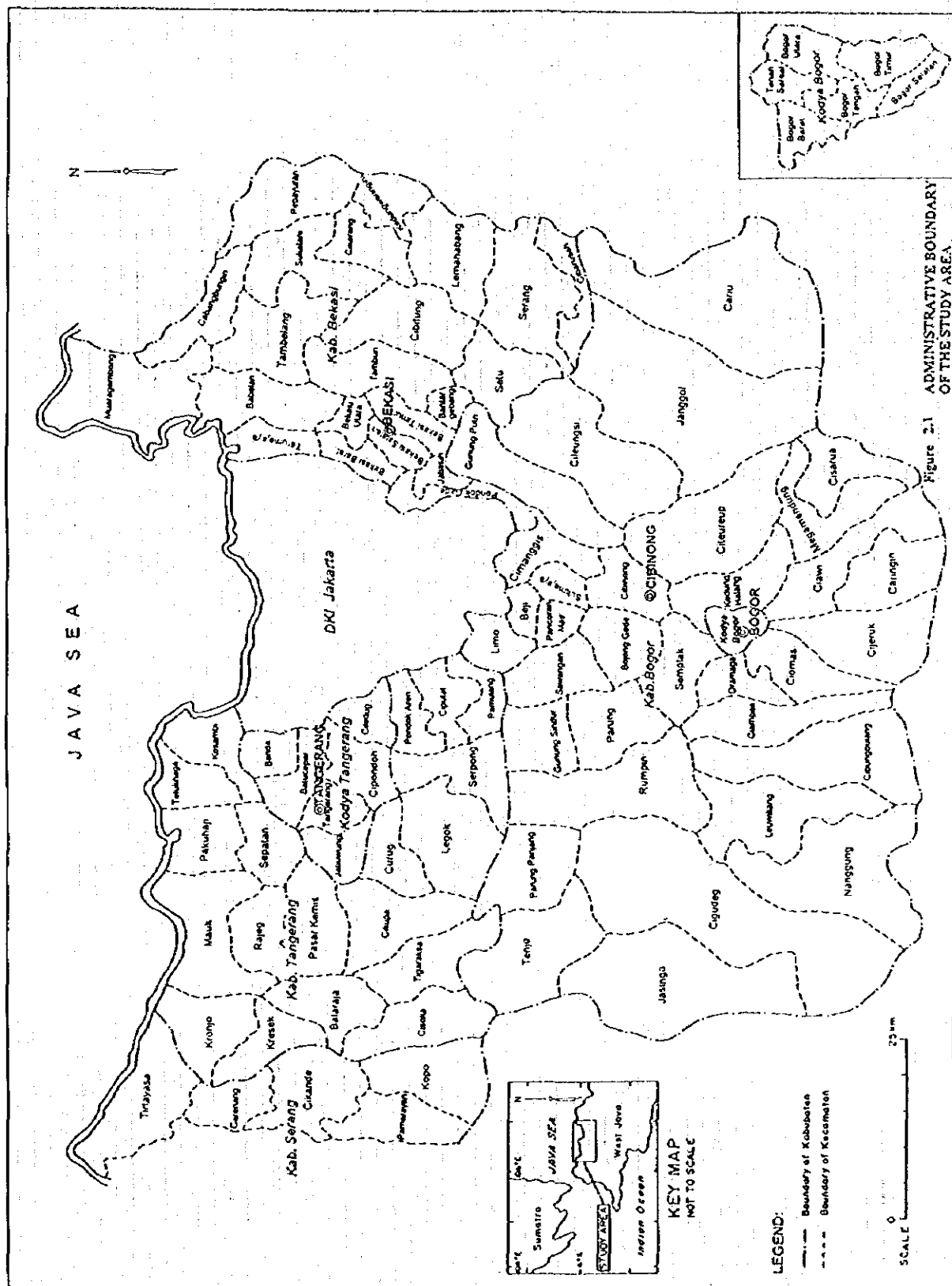
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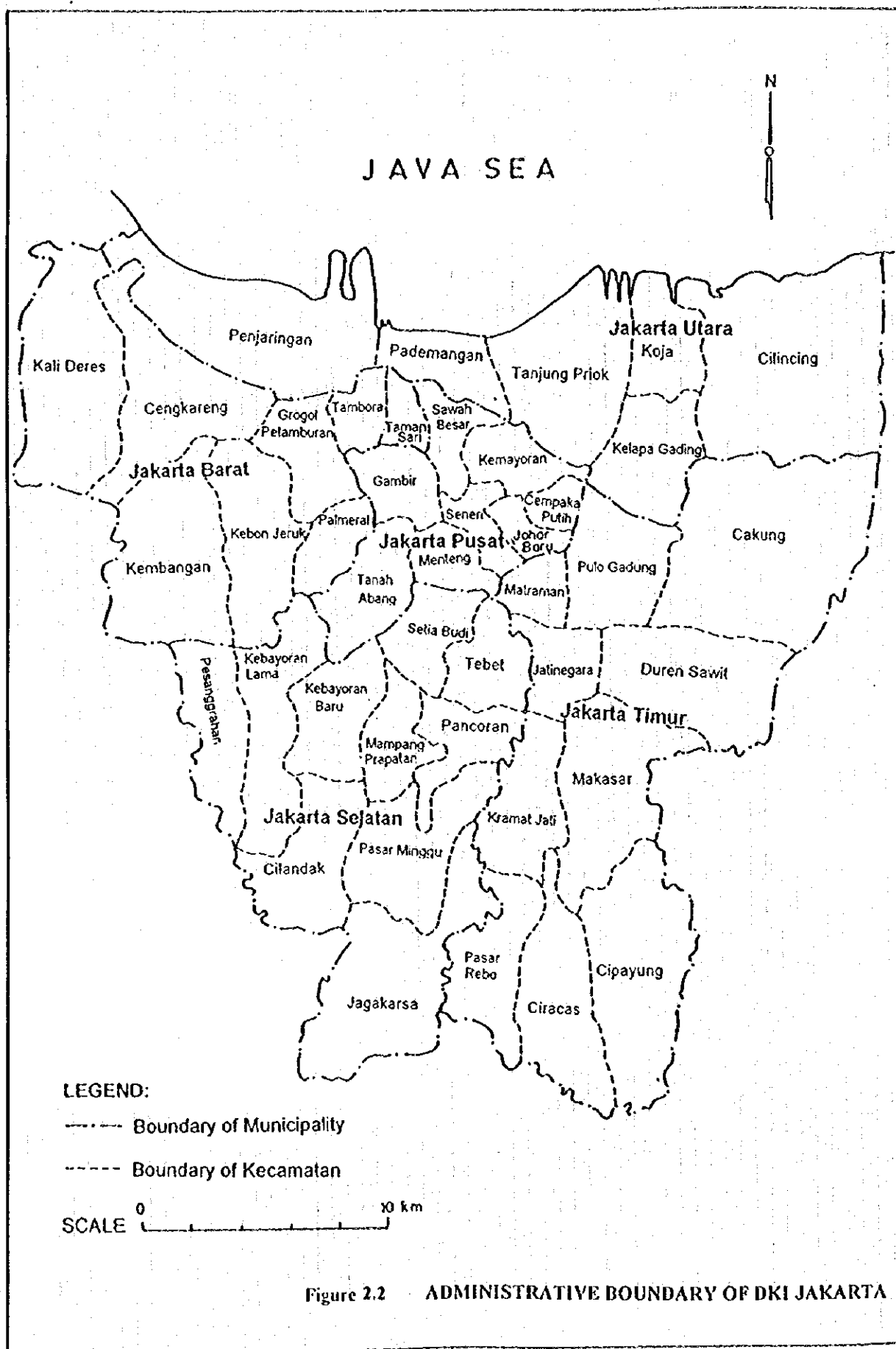


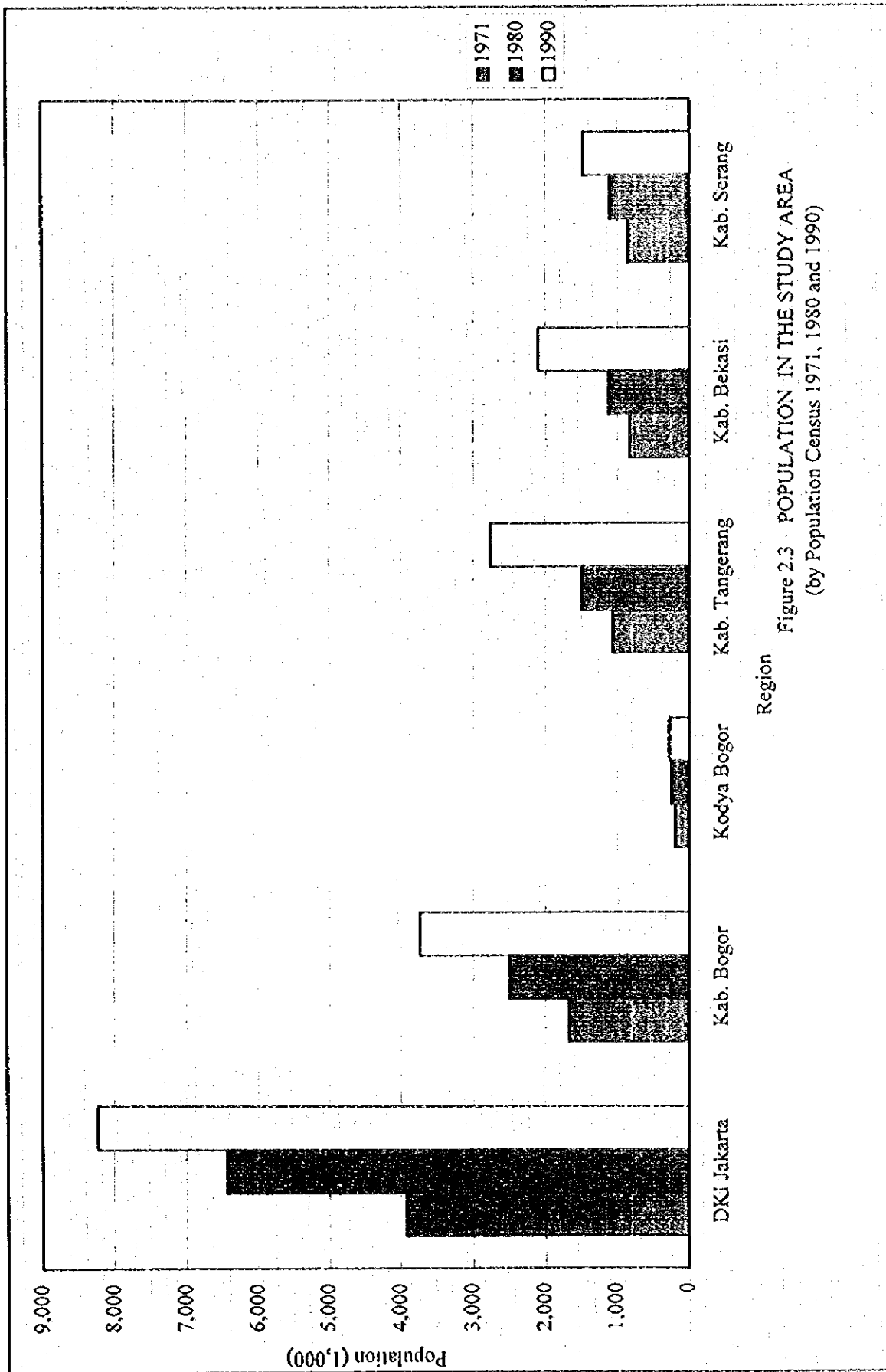


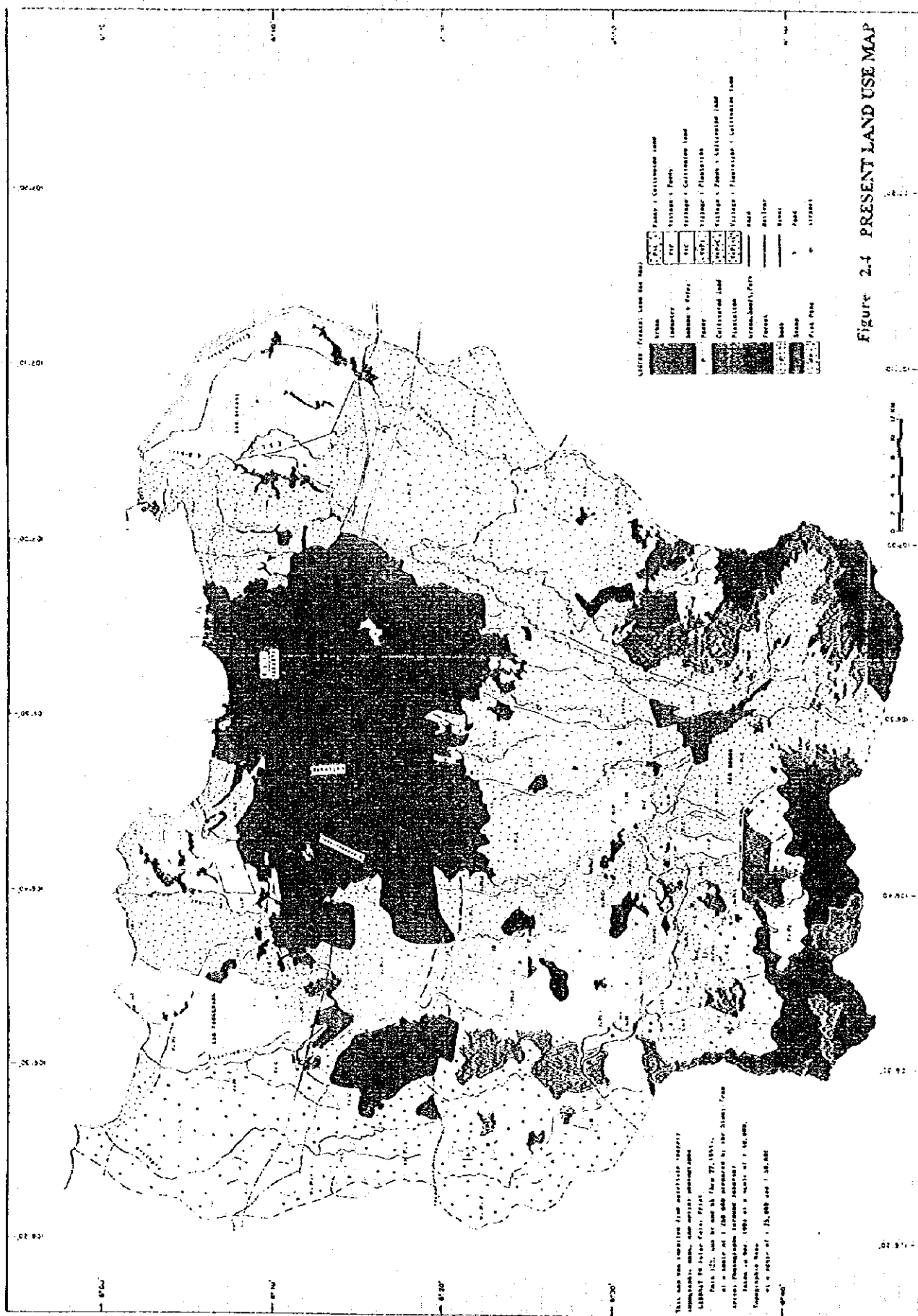


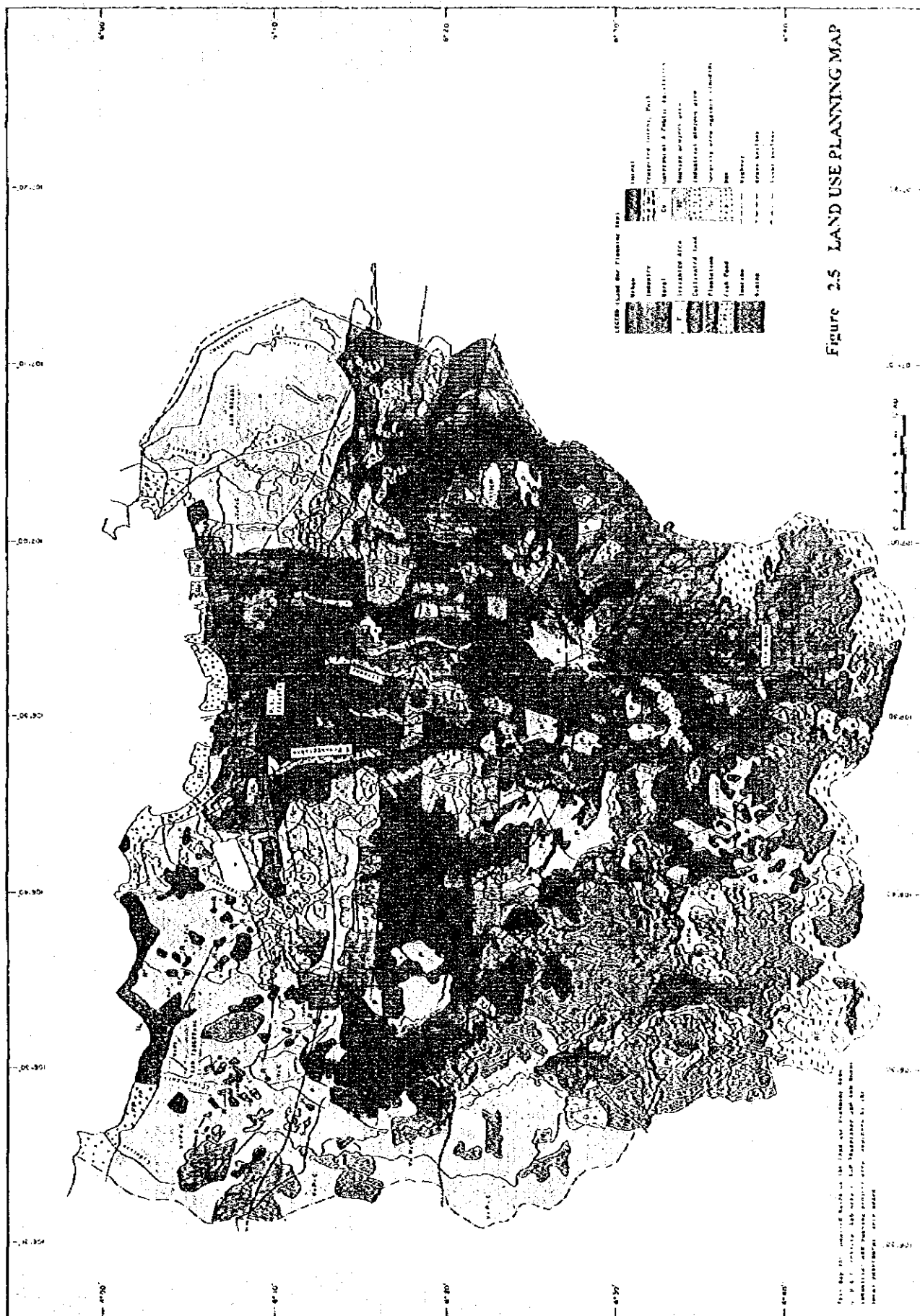




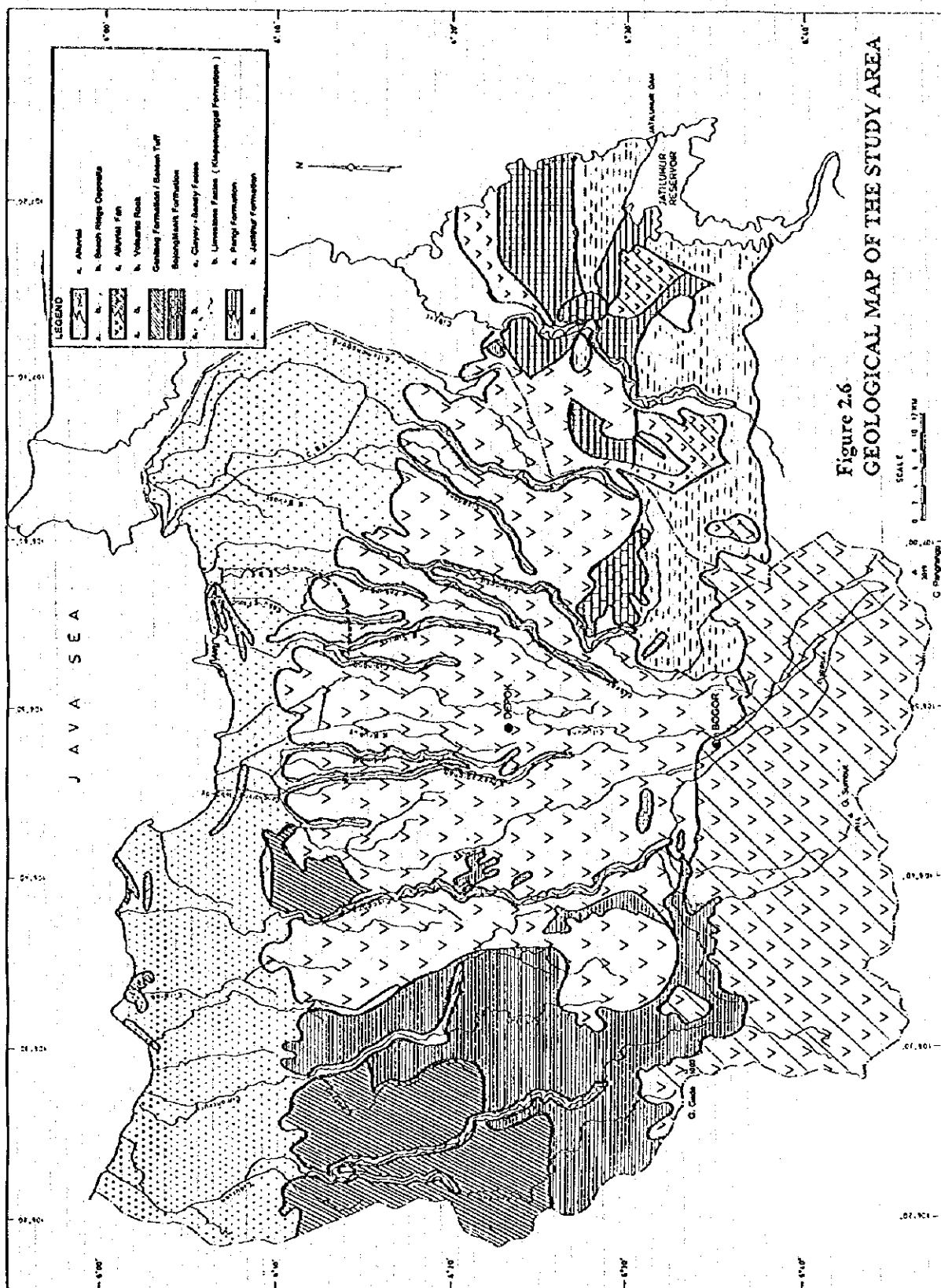












SCALE 10 ⁵ TH	AGE	SYMBOL	FORMATION & LITHOLOGY UNIT	LITHOLOGY	SEDIMENTARY ENVIRONMENT
QUATERNARY	HOLOCENE		Alluvial	Pebbles, Gravel, Sands, Silt, Mud and Plant remains.	Fluvial
	PLEISTOCENE		Beach Ridges Deposits	Coarse Sand, Well Sorted, with mollusc shells.	Terrestrial
			Alluvial Fan	Bedded Fine tuff, Conglomeratic tuff, interbedded with Sandy tuff and Pumice tuff.	
TERTIARY	PLIOCENE		Younger Volcanic Rock	Breccia, Lahar, Pillow lava, Tuffaceous breccia interbedded with Fine tuff.	Terrestrial
			Sudamanik Andesites	Hornblende, pyroxene andesites, porphyritic	
			Banten tuff	Tuff (glass, lithic, crystal) Pumice tuff, Pumiceous breccia and Tuffaceous sandstone	
	Eocene		Serpong Formation	Alternating Conglomerate, Sandstone, Siltstone, Claystone with Plant material, Pumice conglomerate, Pumice tuff.	Terrestrial to Tidal Fluvial (Braided old river)
			UNCONFORMITY		
CRETACEOUS	LATE		Genteng Formation	Pumice tuff, Tuffaceous sandstone, Andesite breccia Conglomerate, Pebble sandstone with intercalation of Tuffaceous claystone, rich in silicified wood.	Litoral to Terrestrial
	MIDDLE		UNCONFORMITY	Intrudes the Bojongmanik, Klapanunggal and Jatiluhur Formation.	
			Dago Basalt	Alternation of Sandstone and Sandy clay with intercalation of Limestone in the lower part and Tuffaceous sandstone and Tuff. In the upper part, in some places Ugnite, Intercalation were found.	Shallow neritic to Brackish water
			Bojong manik Formation (Western Part)	Reef Limestone.	
			Klapanunggal Formation (Eastern Part)		Marine
OLIGOCENE	EARLY		Jatiluhur Formation	Marl and Claystone with a Calcareous sandstone intercalation.	
			UNCONFORMITY		
			Rengganis Formation	Fine course Sandstone, Conglomerate and Claystone.	

Figure 2.7 LOCAL STRATIGRAPHIC LOG

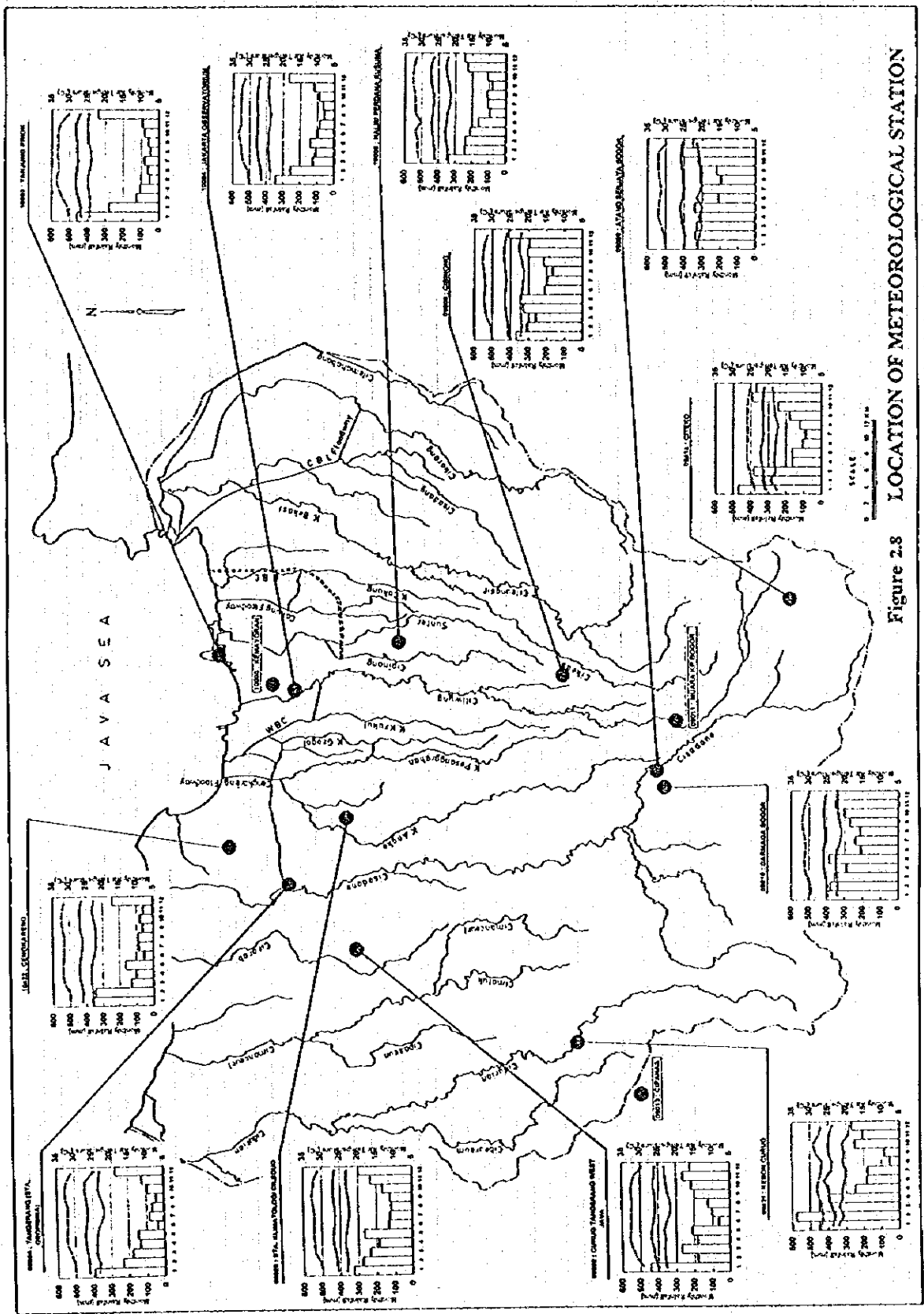
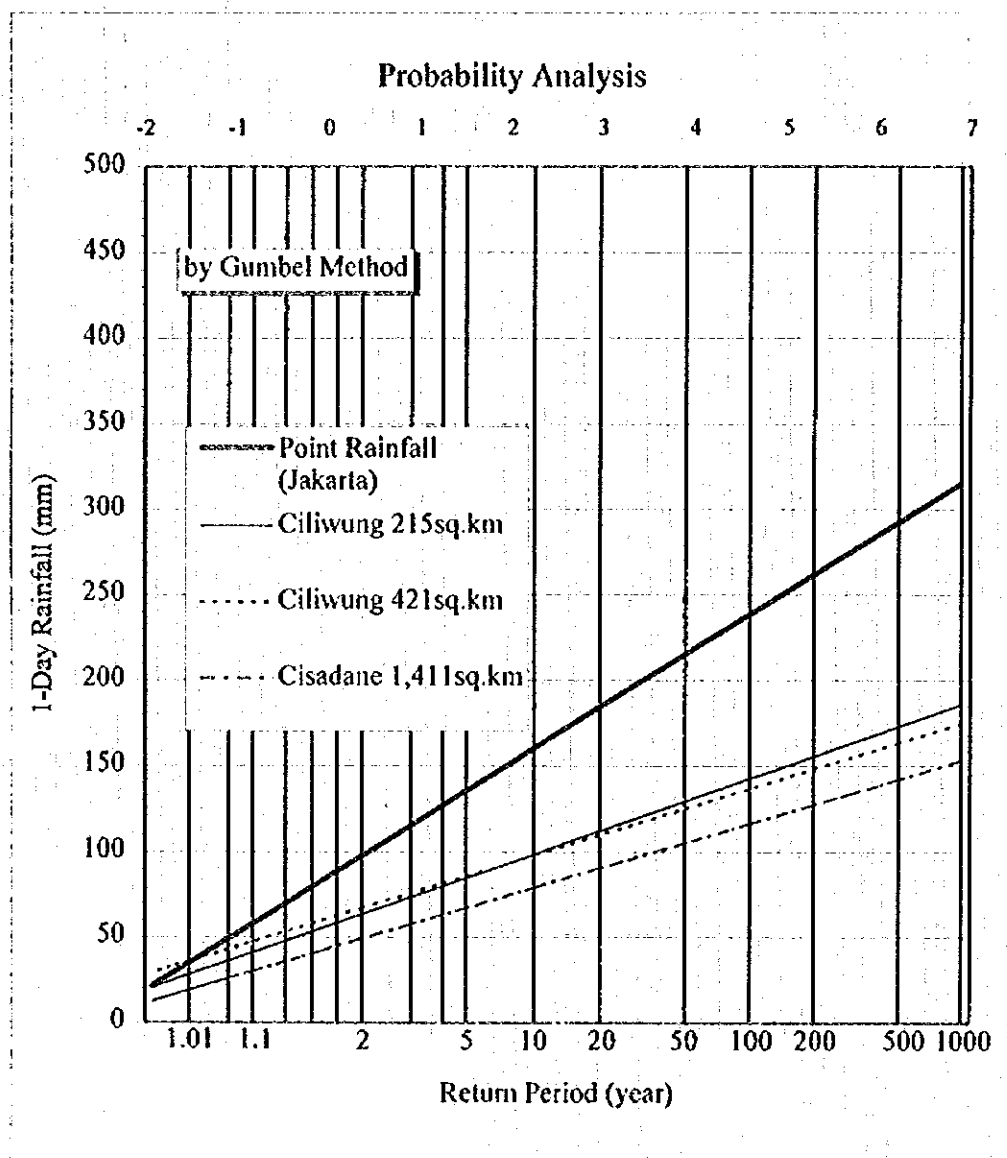
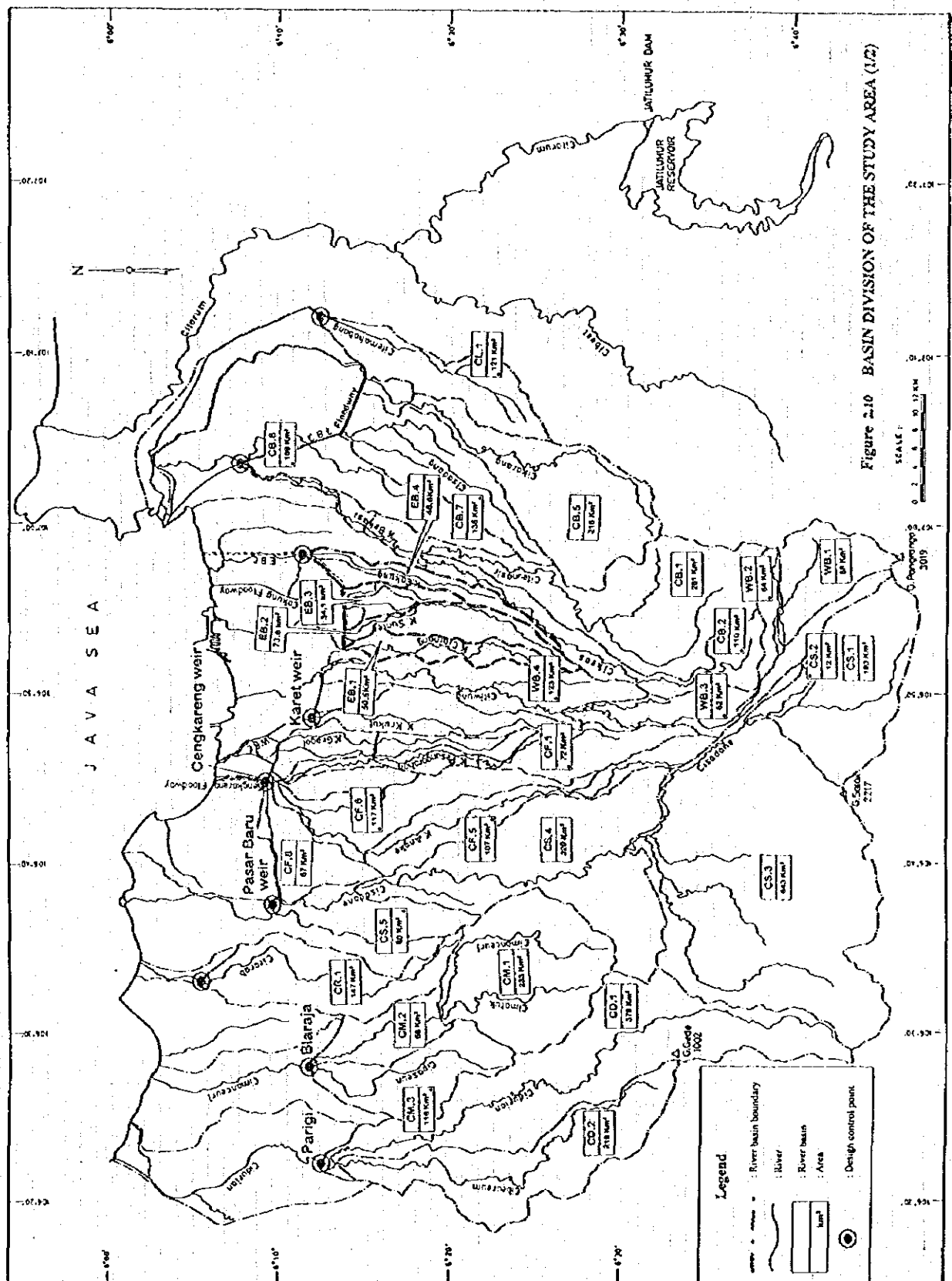


Figure 2.8 LOCATION OF METEOROLOGICAL STATION



Return Period (year)	Jakarta Point Rainfall (mm)	Ciliwung A=215 km ² (mm)	Ciliwung A=421 km ² (mm)	Cisadane A=1,411 km ² (mm)
1000	315.2	185.6	174.7	153.1
500	292.1	172.7	163.3	142.0
250	269.1	159.7	151.9	131.0
200	261.6	155.5	148.2	127.5
100	238.5	142.5	136.8	116.4
50	215.3	129.4	125.3	105.3
30	198.1	119.8	116.7	97.1
25	191.9	116.3	113.7	94.1
20	184.3	112.0	109.9	90.5
10	160.3	98.6	98.1	79.0
5	135.4	84.5	85.7	67.1
2	97.7	63.3	67.1	49.1

Figure 2.9 PROBABLE DAILY RAINFALL



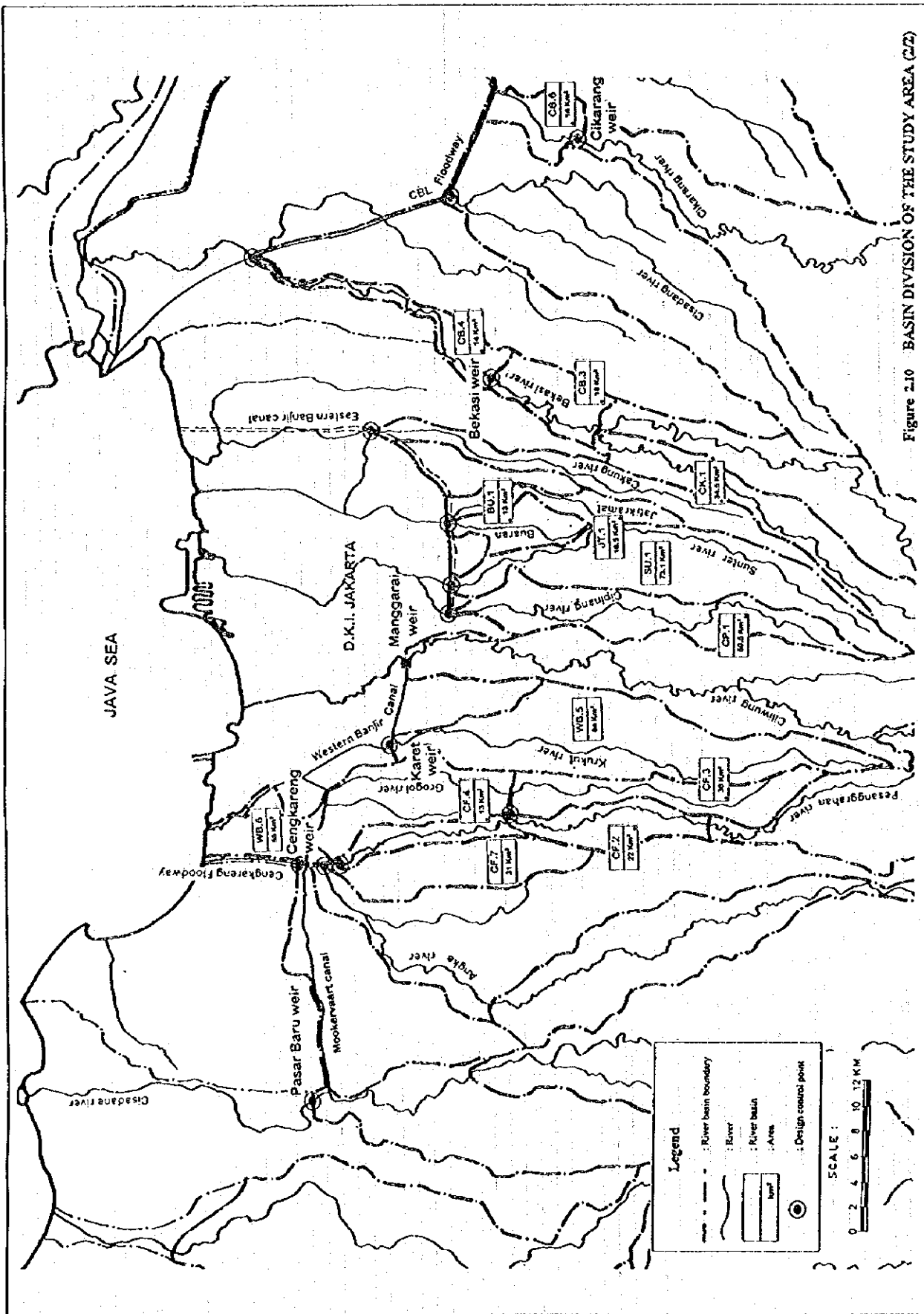
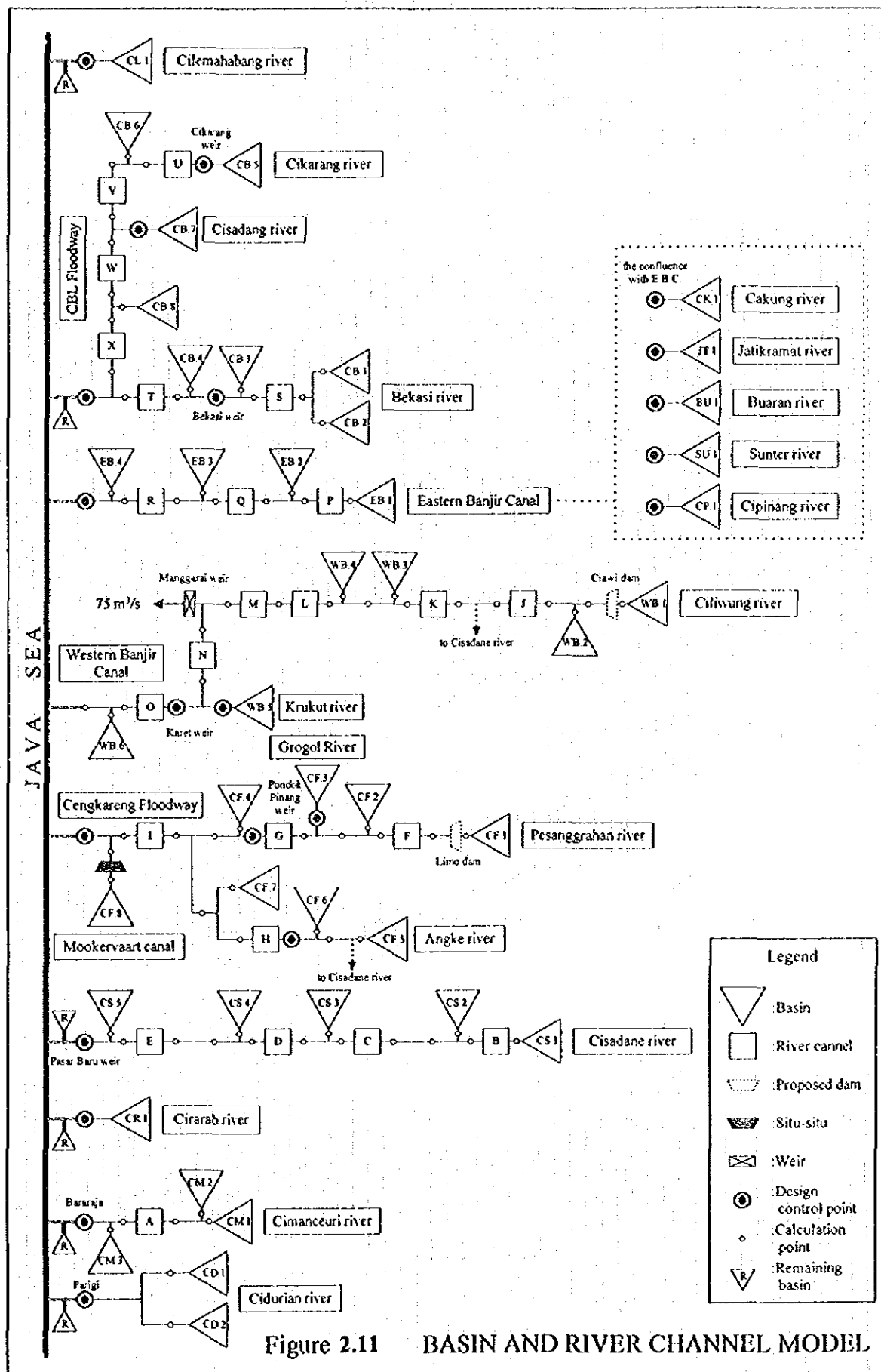


Figure 2.10 BASIN DIVISION OF THE STUDY AREA (CZ)



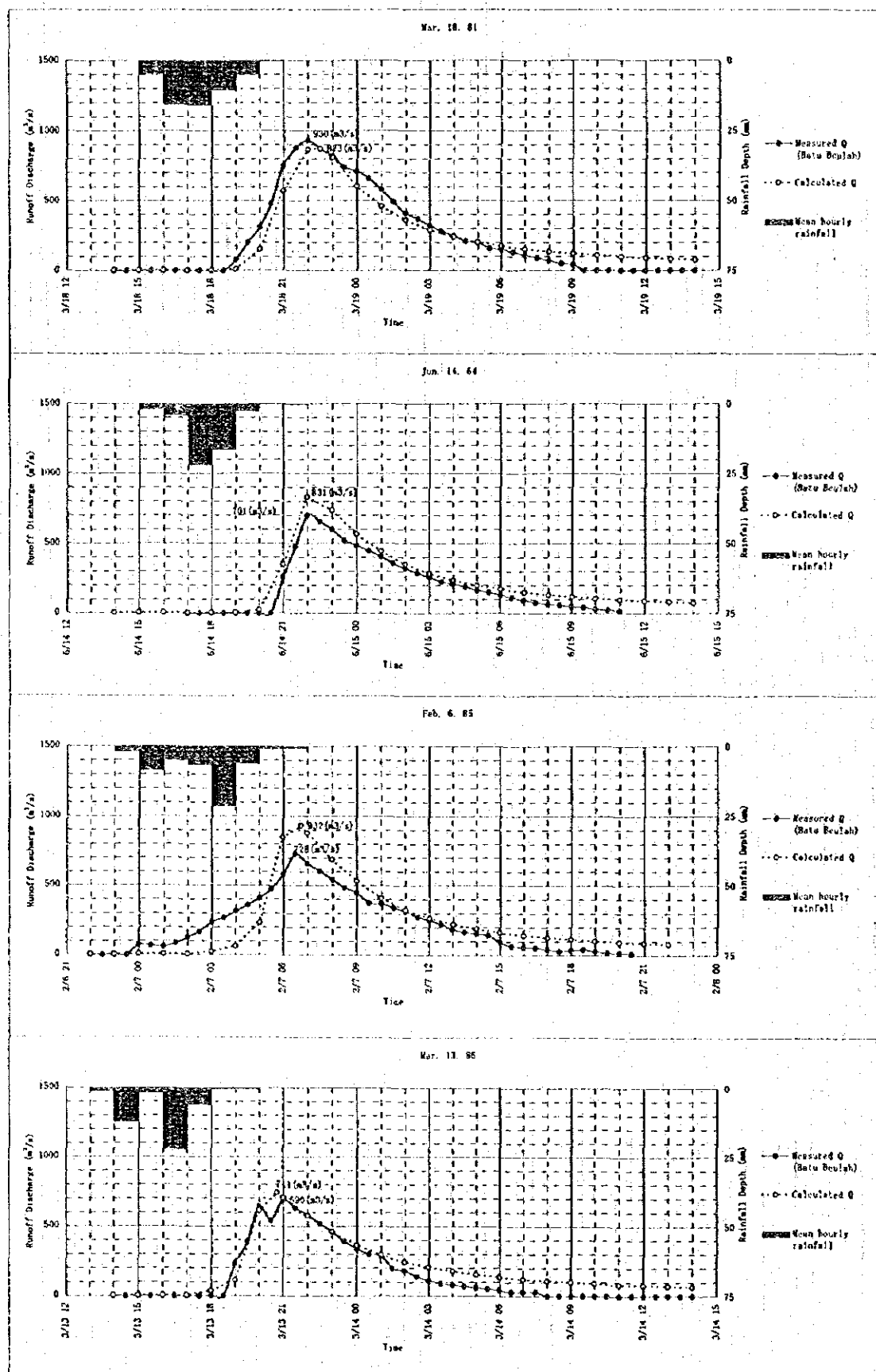


Figure 2.12 OBSERVED AND SIMULATED HYDROGRAPH

Monthly Tide Level

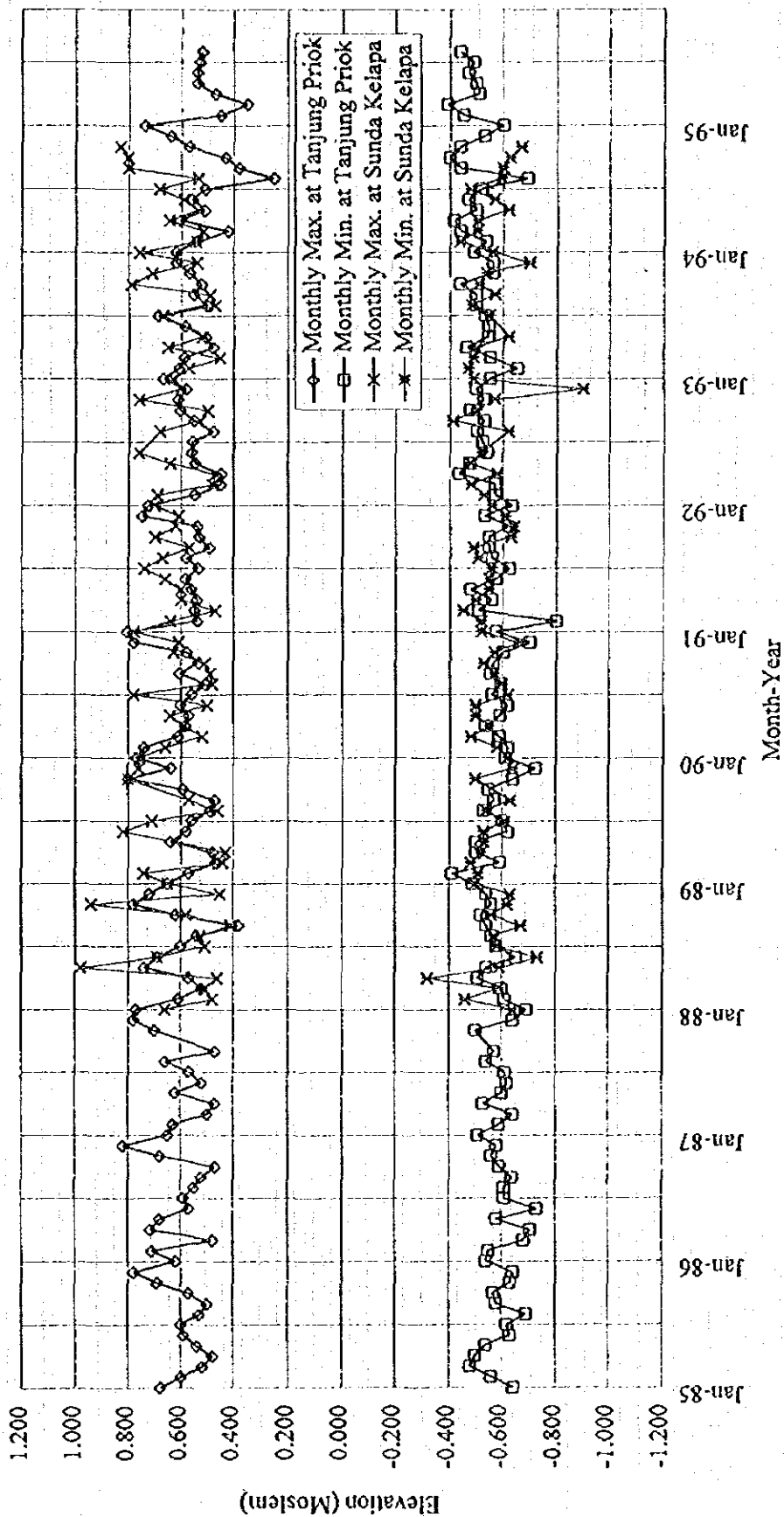
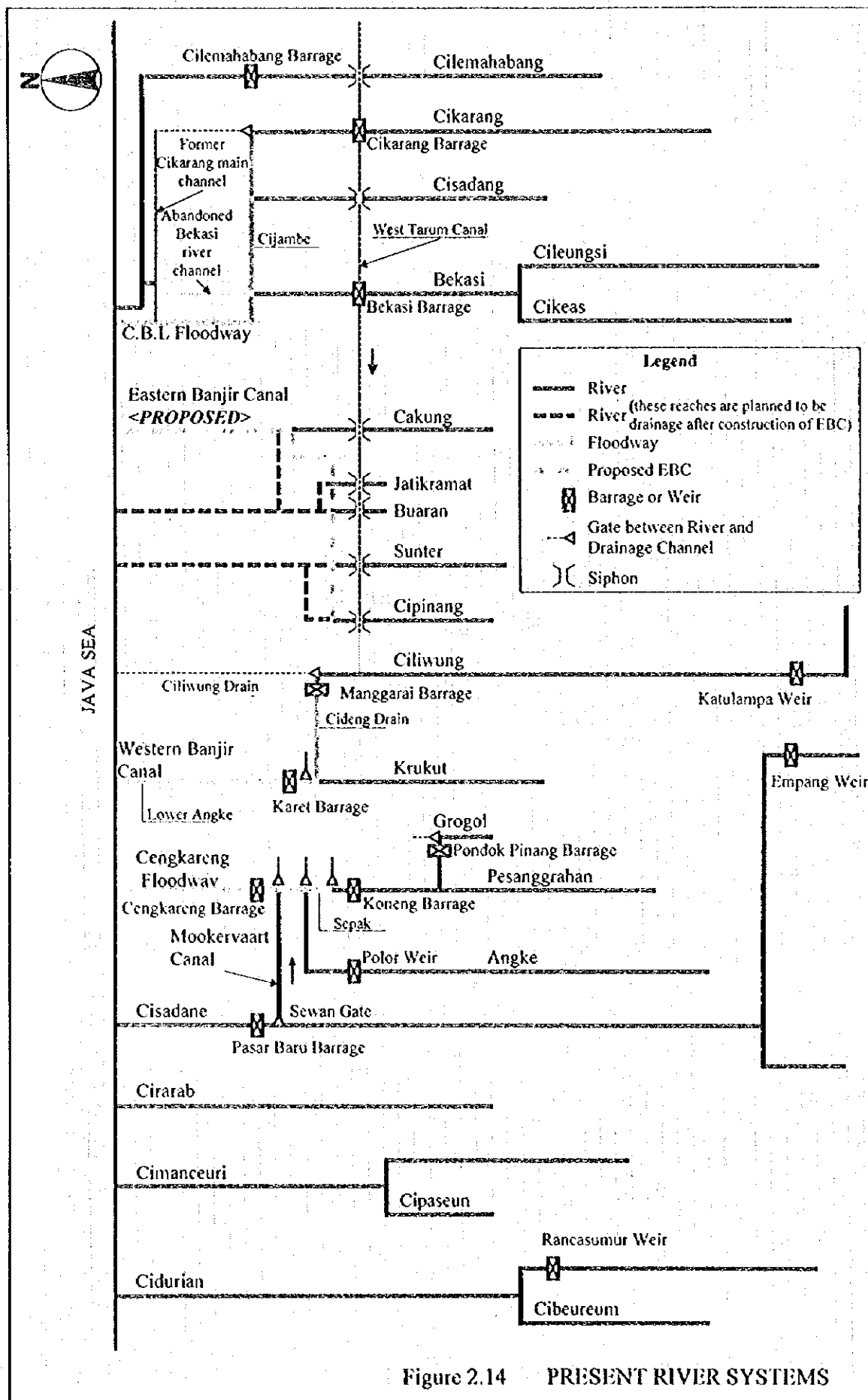
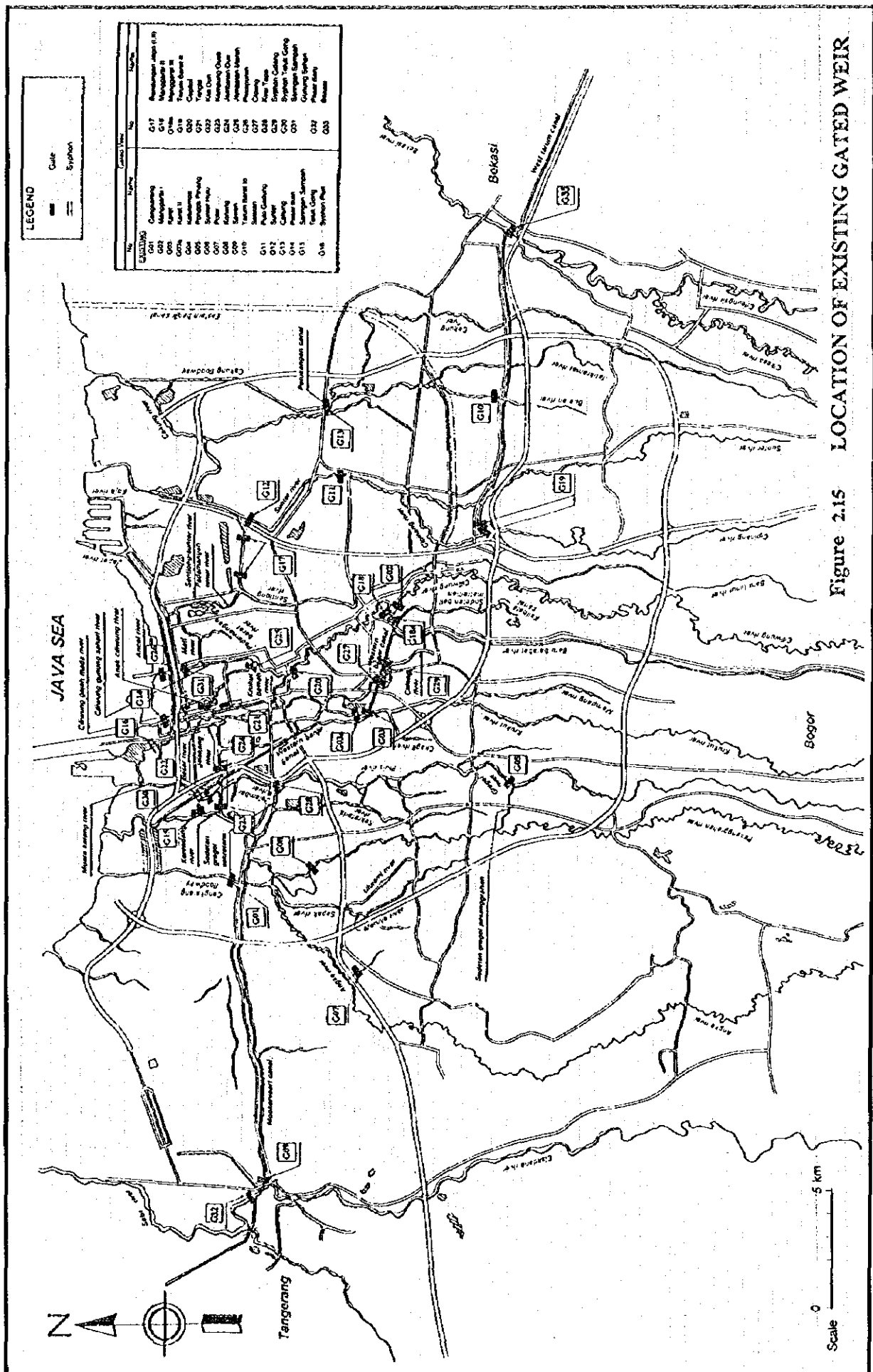
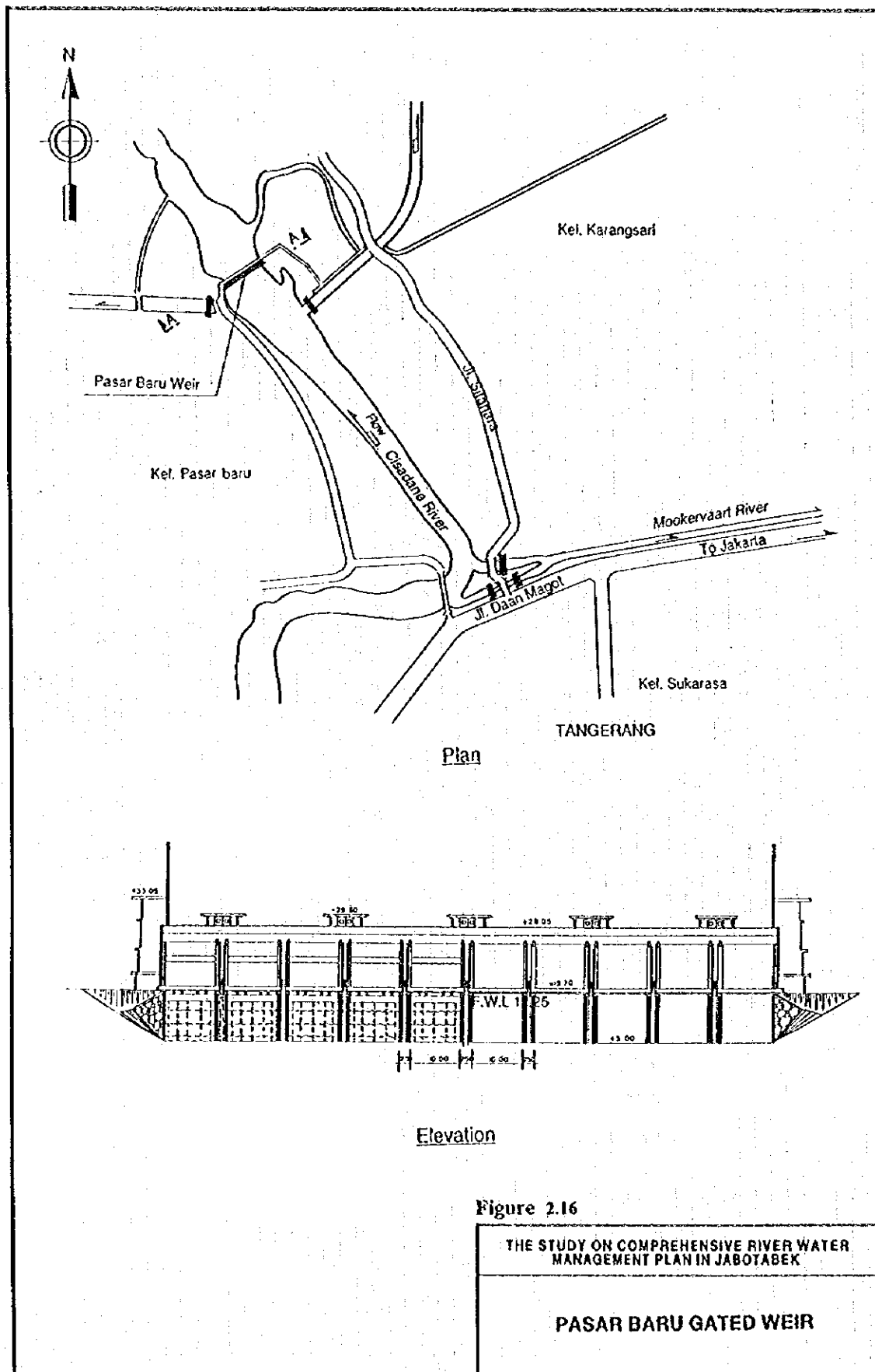
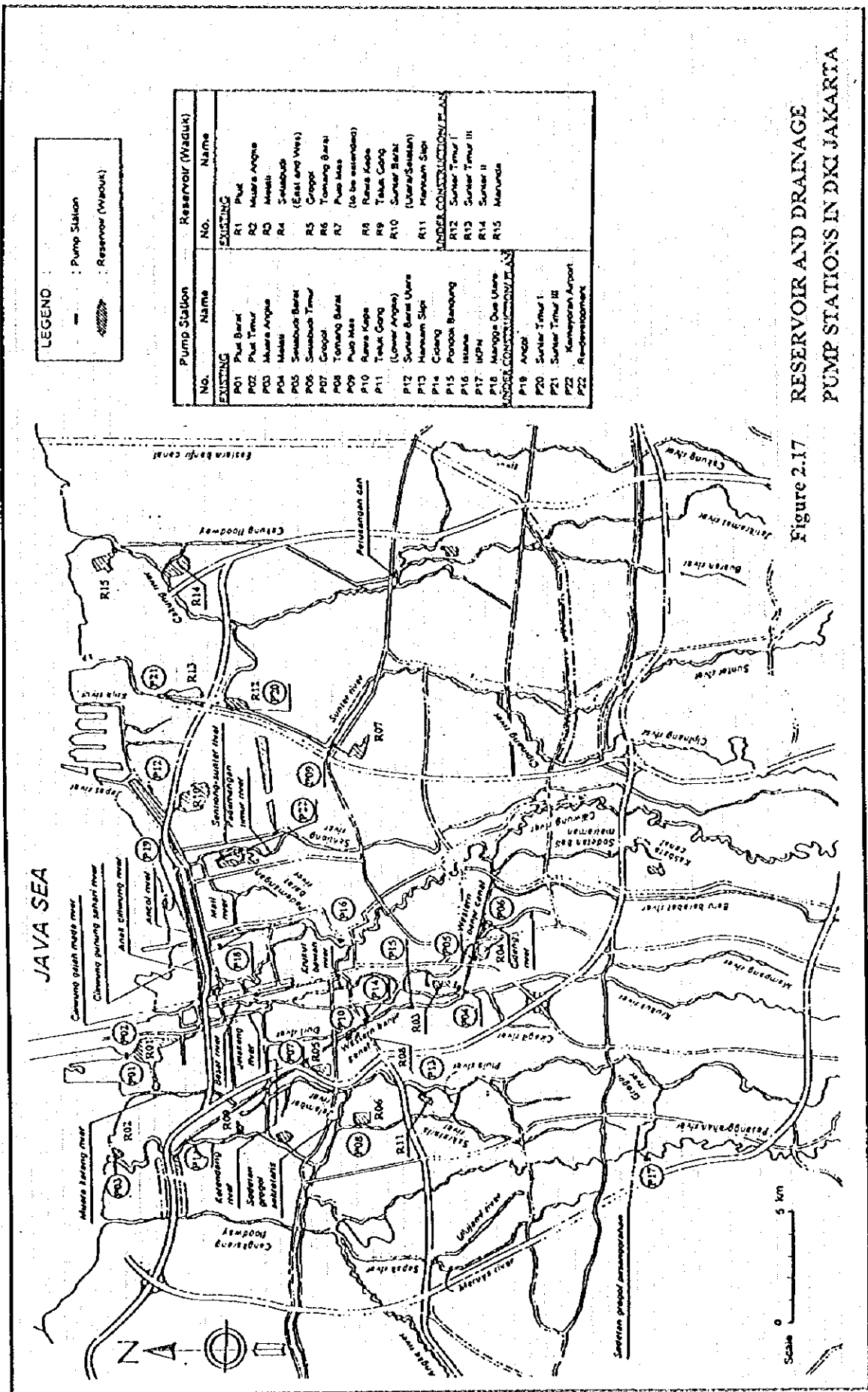


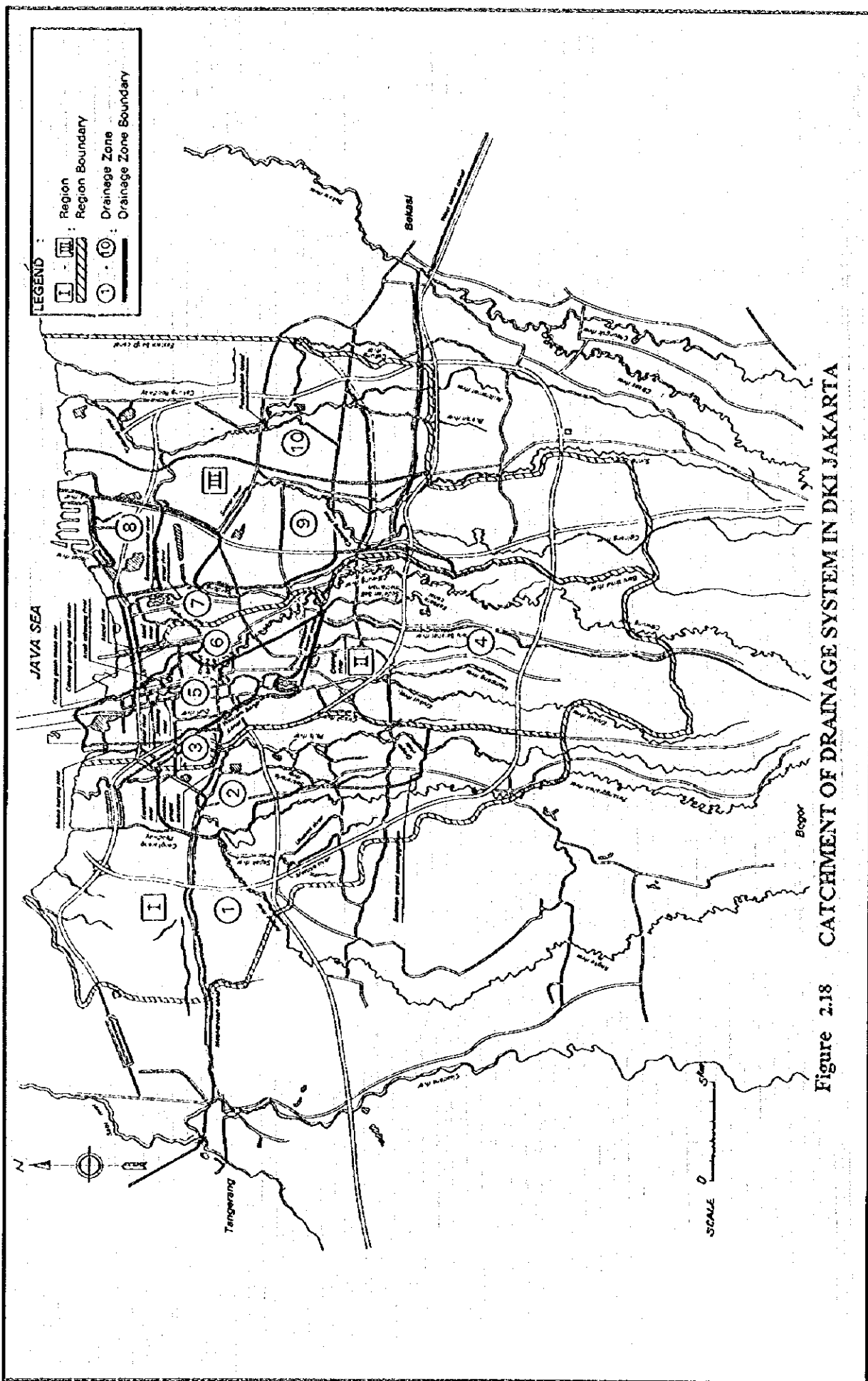
Figure 2.13 MONTHLY MAXIMUM AND MINIMUM TIDE











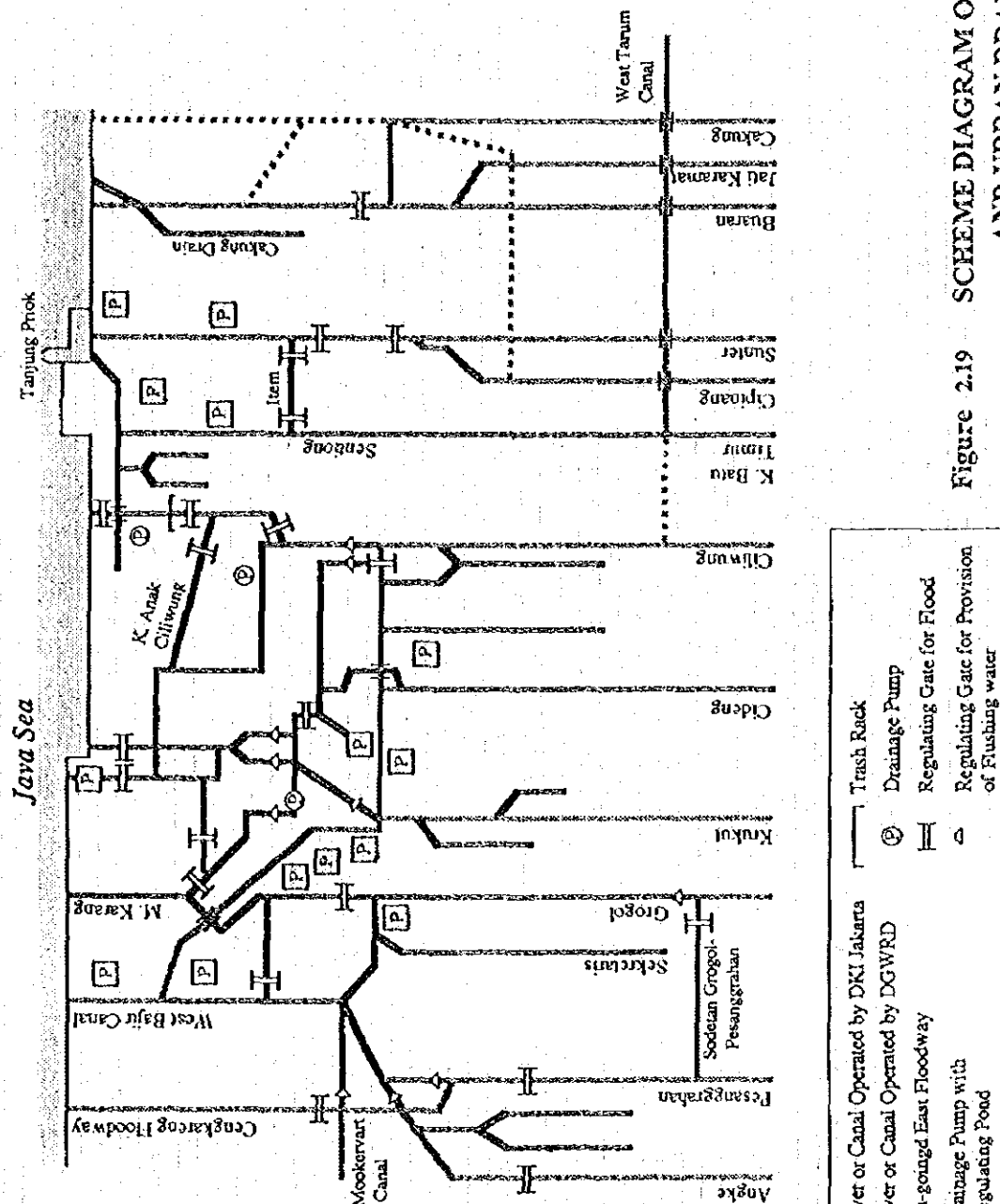
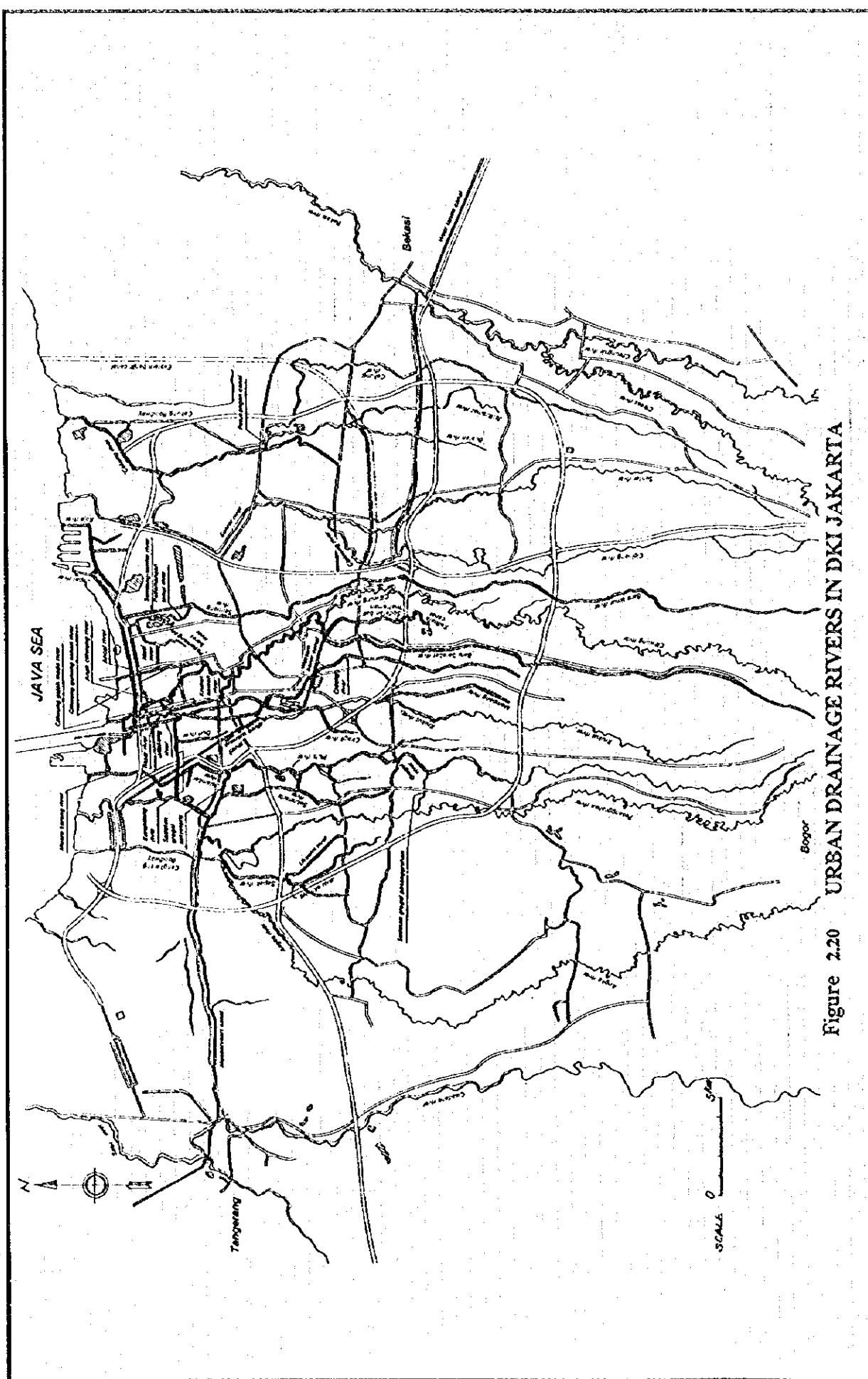
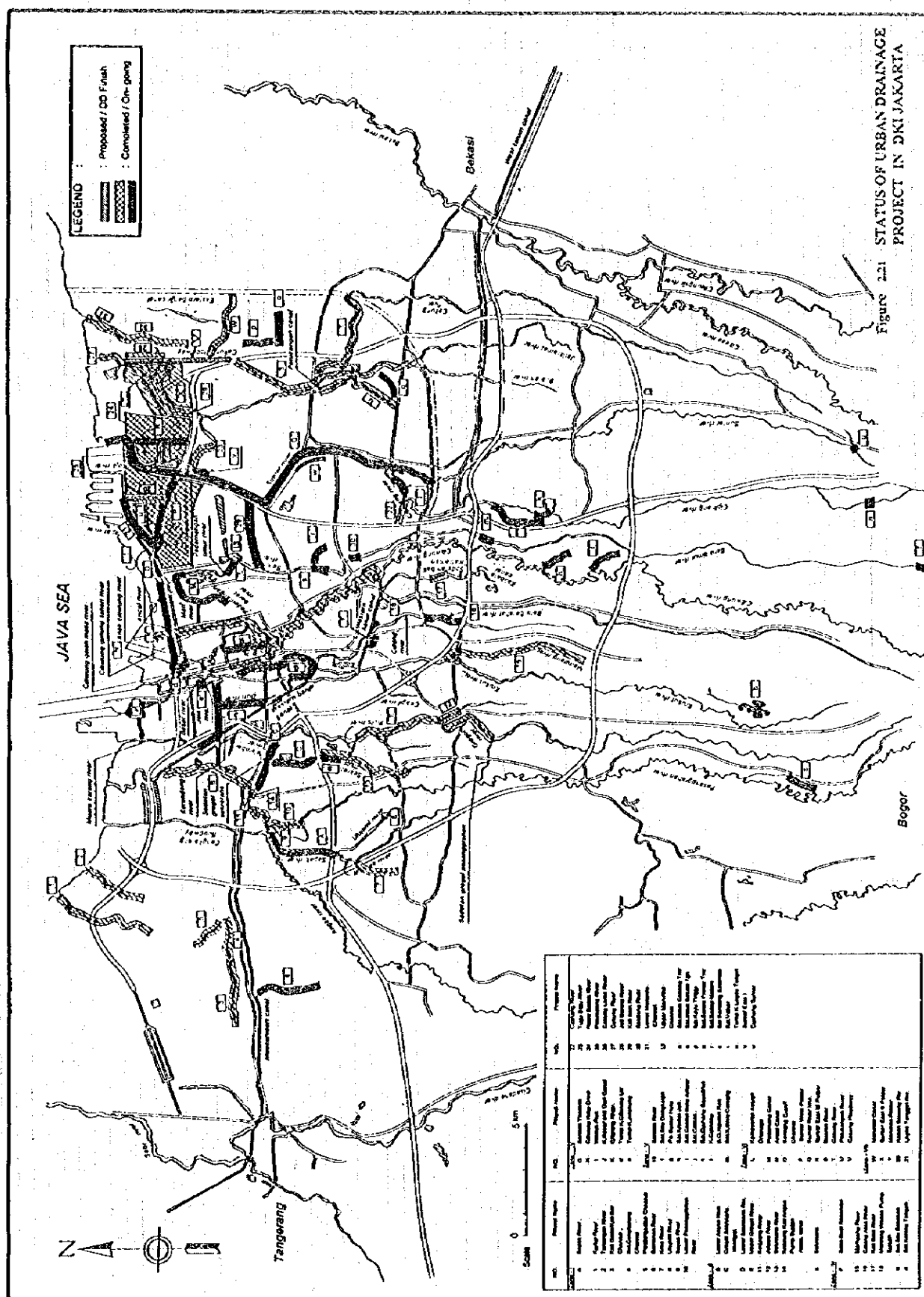


Figure 2.19 SCHEME DIAGRAM OF FLOOD CONTROL AND URBAN DRAINAGE RIVERS IN DKI JAKARTA





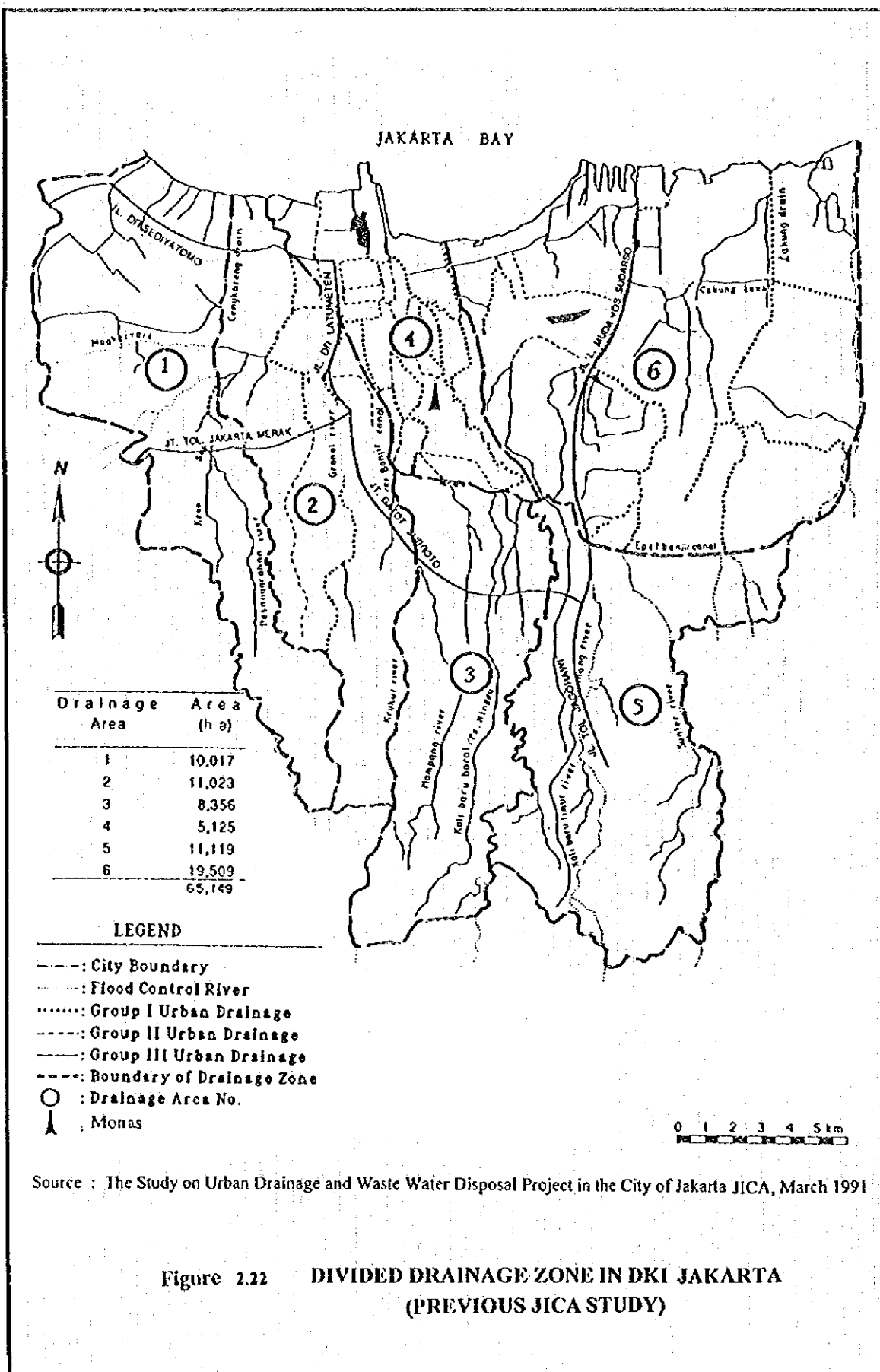
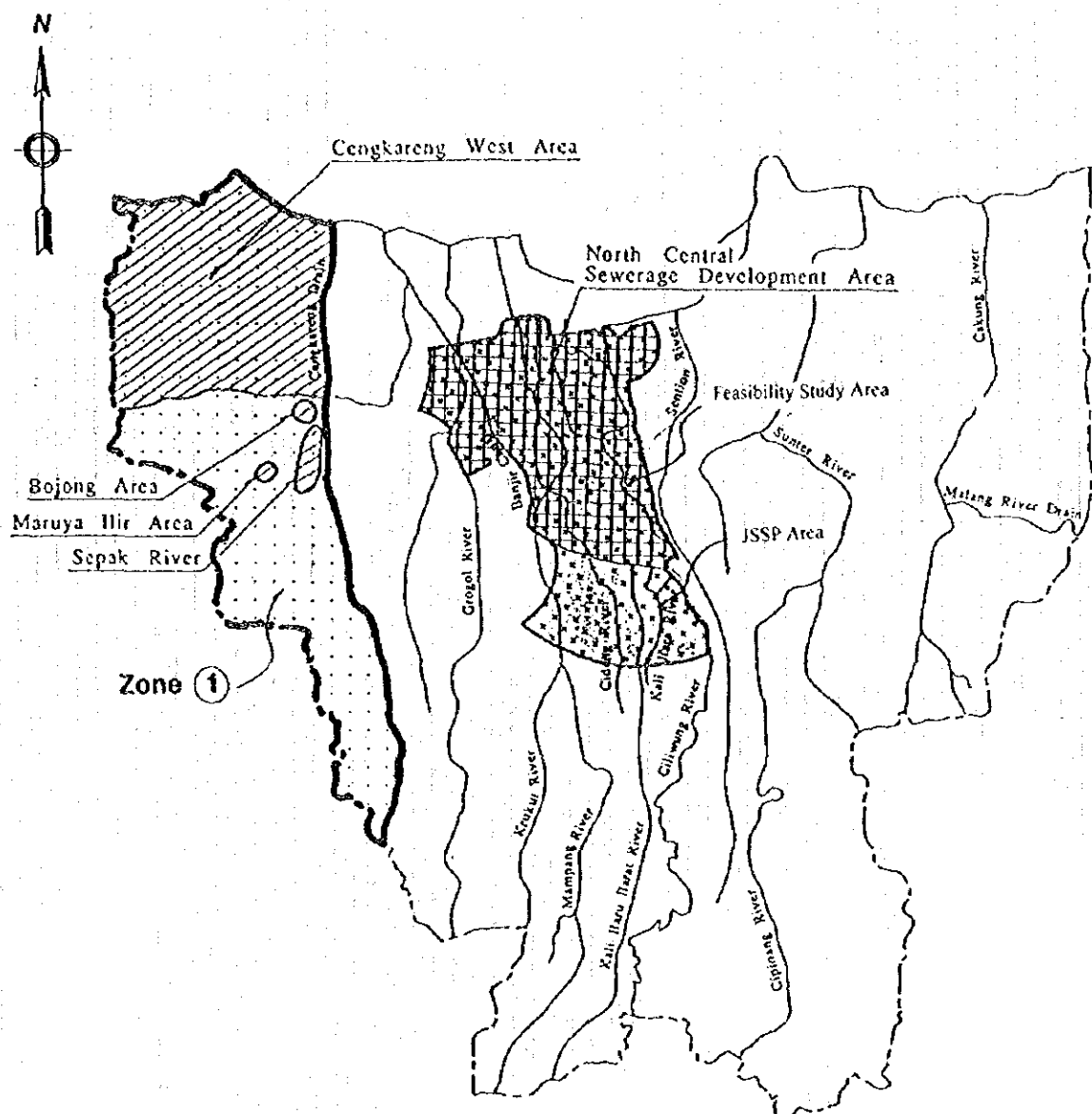






Figure 2.22 DIVIDED DRAINAGE ZONE IN DKI JAKARTA
(PREVIOUS JICA STUDY)

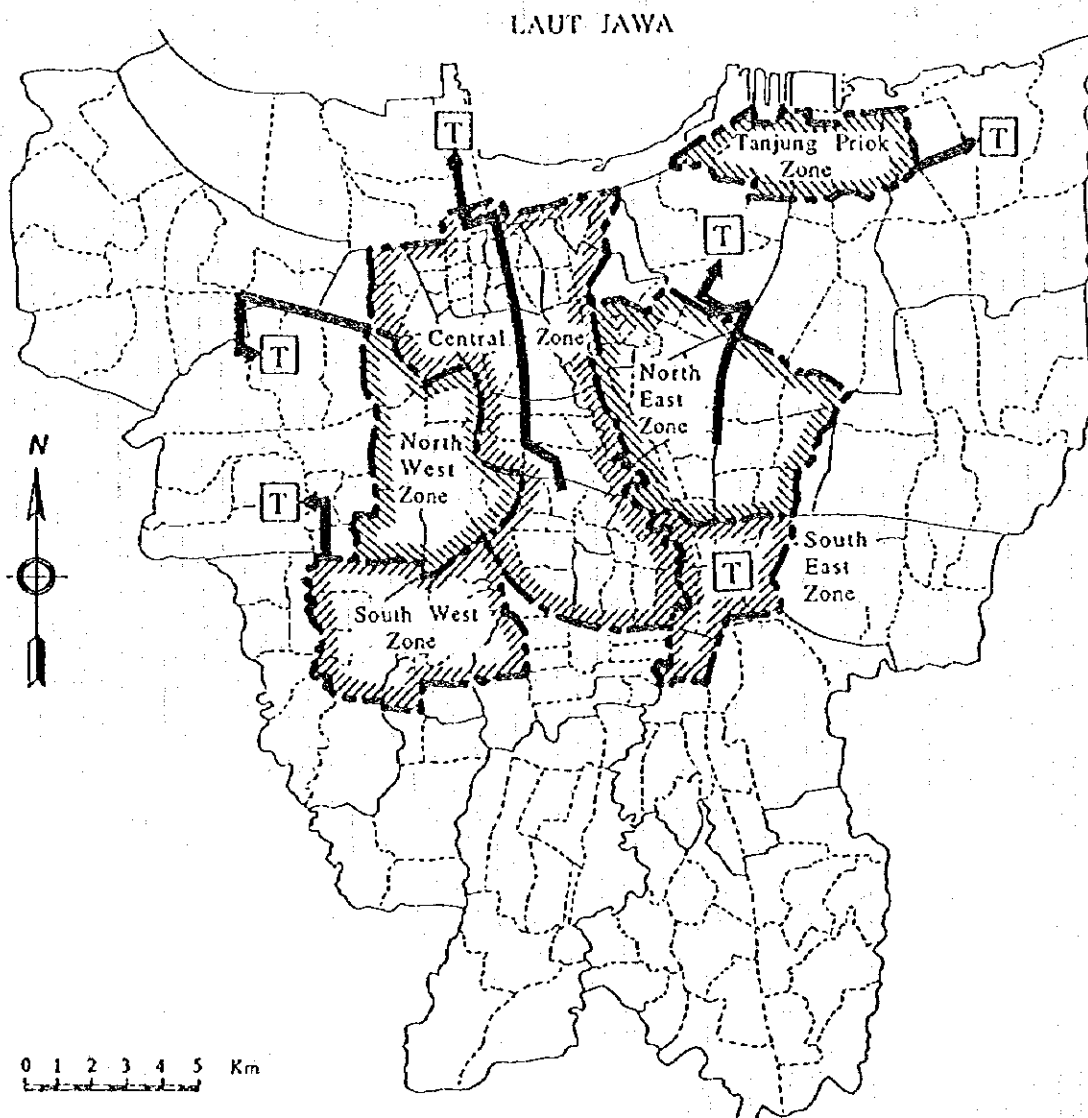


LEGEND

-  : Priority Area of Drainage Development (Drainage Zone No.1)
-  : Project Area of Drainage Development
-  : Priority Area of Sewerage Development (Central Sewerage Zone)
-  : Project Area of Sewerage Development

Source : The Study on Urban Drainage and Waste Water Disposal Project in the City of Jakarta
JICA, March 1991

Figure 2.23 PROPOSED URBAN DRAINAGE AND SEWERAGE DEVELOPMENT PLAN IN PREVIOUS JICA STUDY

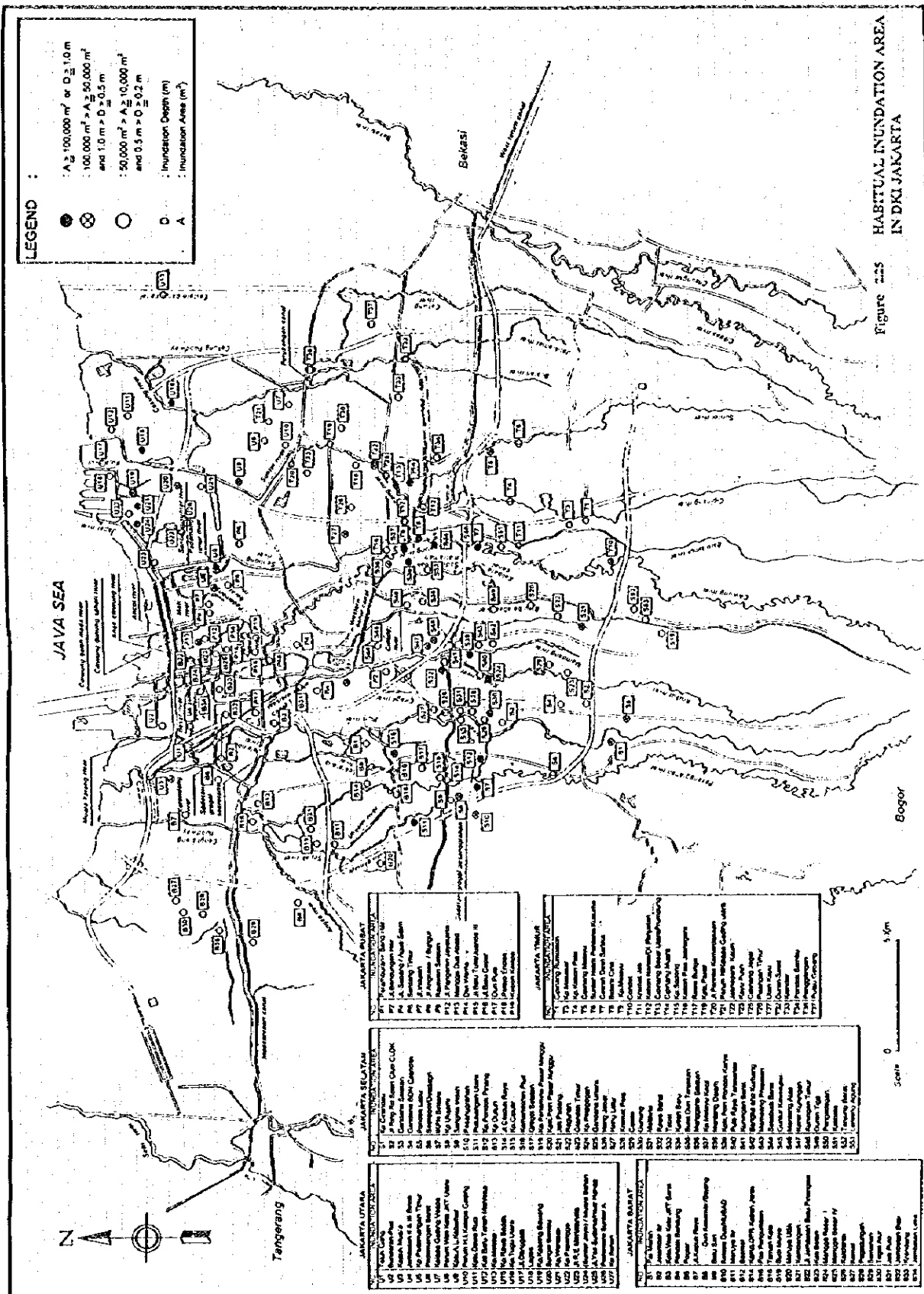


Source : The Study on Urban Drainage and Waste Water Disposal Project in the City of Jakarta JICA, March 1991

LEGEND

- : Wilayah Boundary
- - - - - : Kecamatan Boundary
- - - - - : Kelurahan Boundary
- : Boundary of Sewerage Development Zone
- > : Conveyance Sewer Line
- [T] : Sewerage Treatment Plant

Figure 2.24 SEWERAGE DEVELOPMENT SYSTEM PROPOSED IN PREVIOUS JICA MASTER PLAN





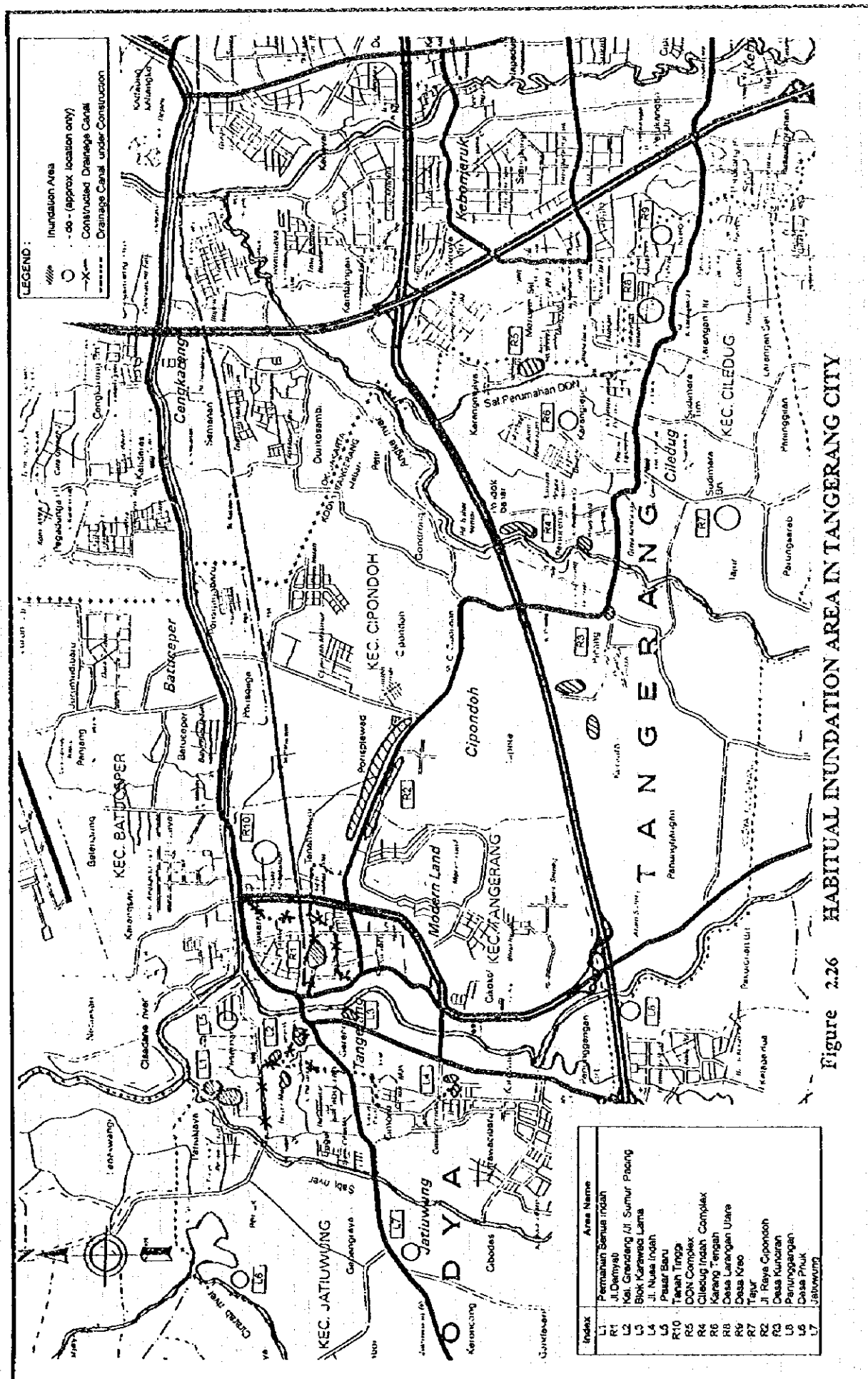
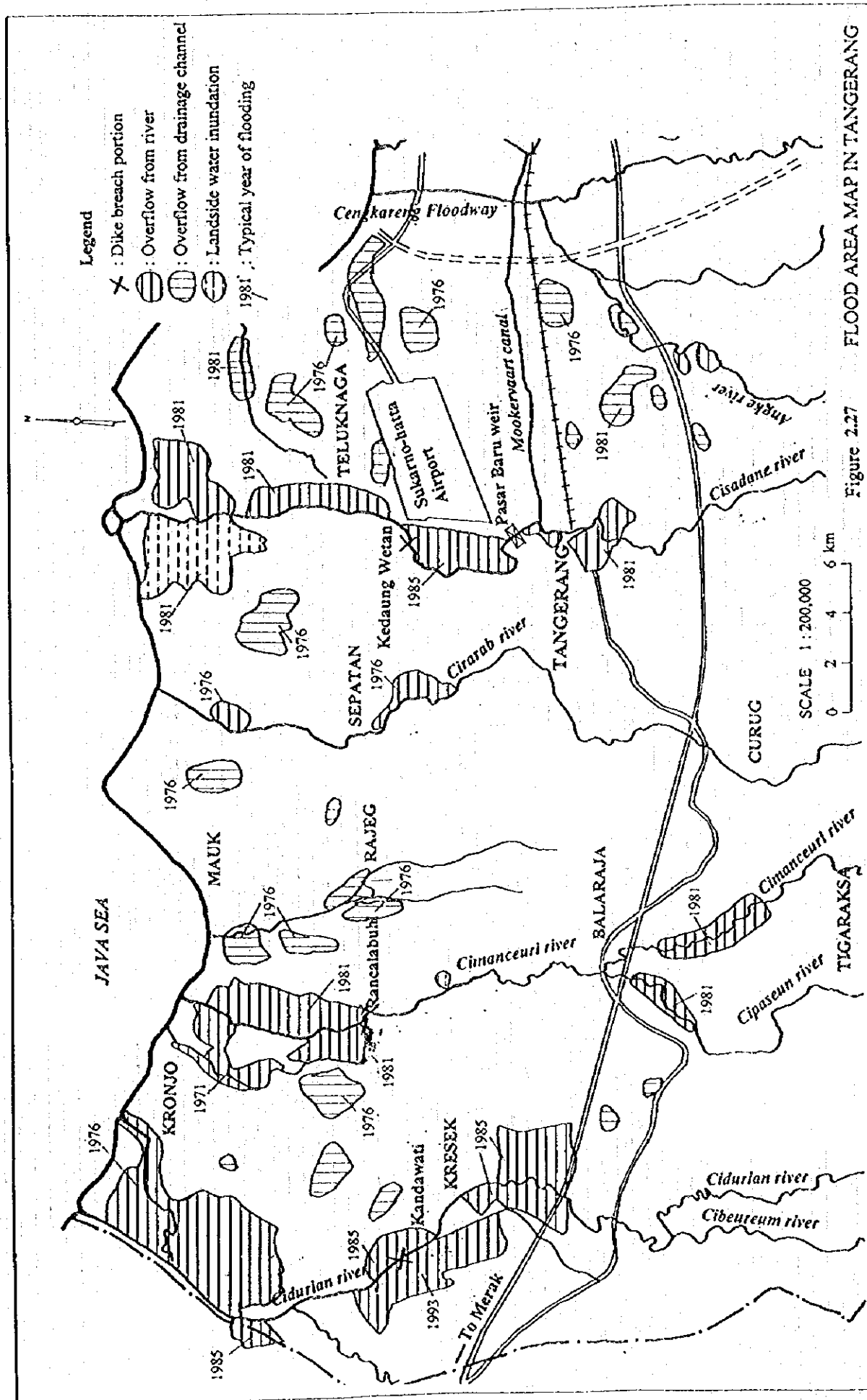


Figure 2.26 HABITUAL INUNDATION AREA IN TANGERANG CITY



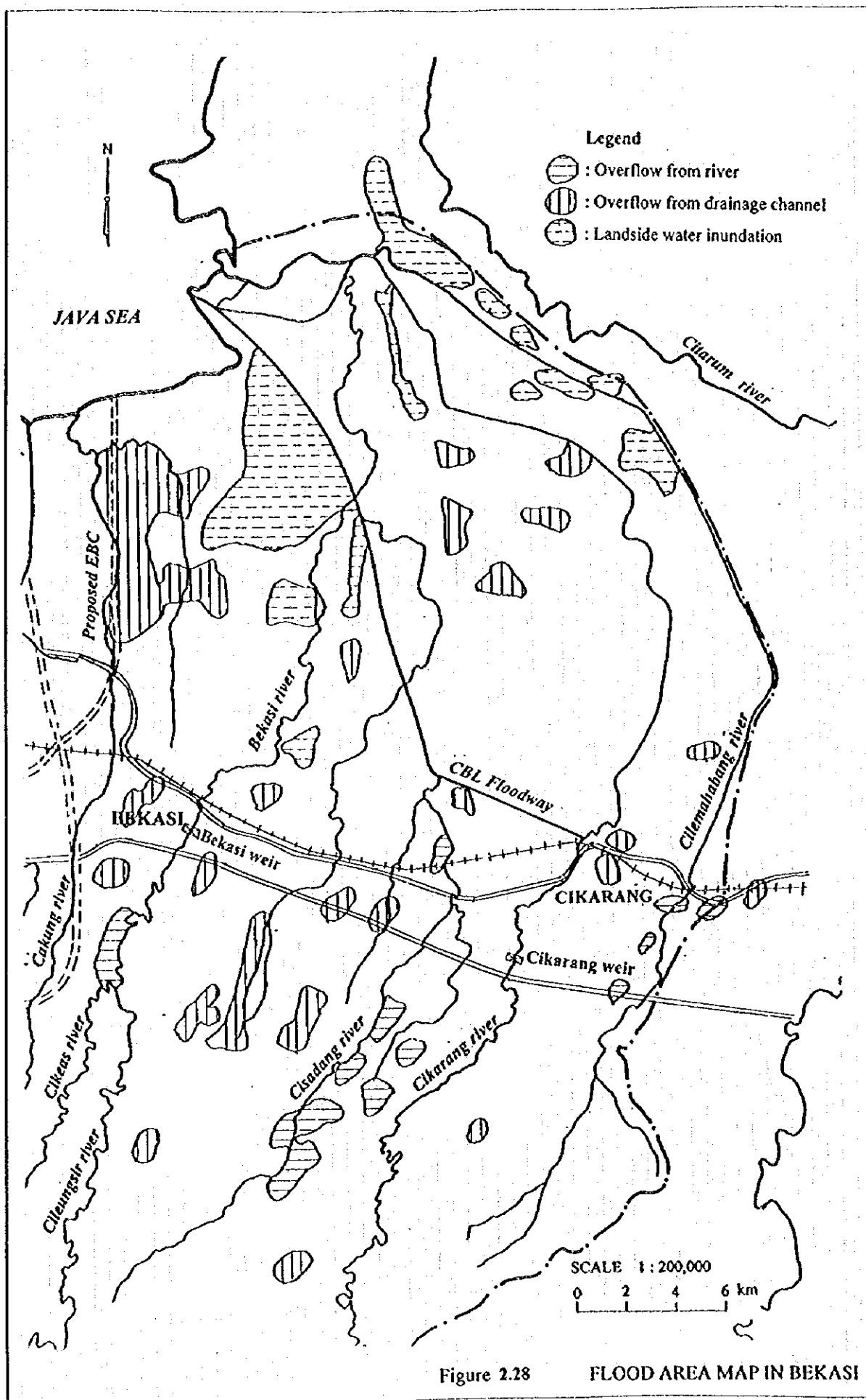
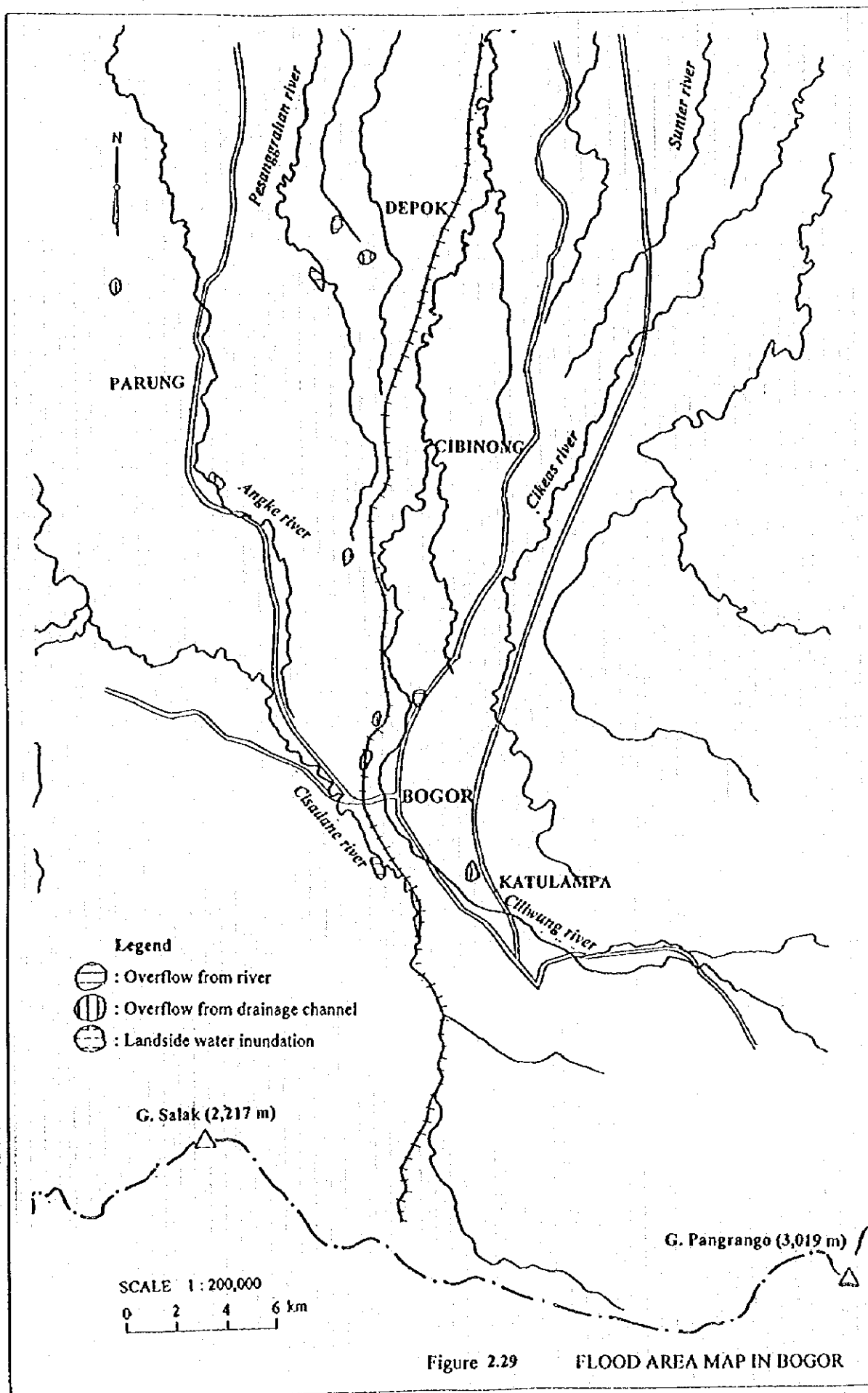
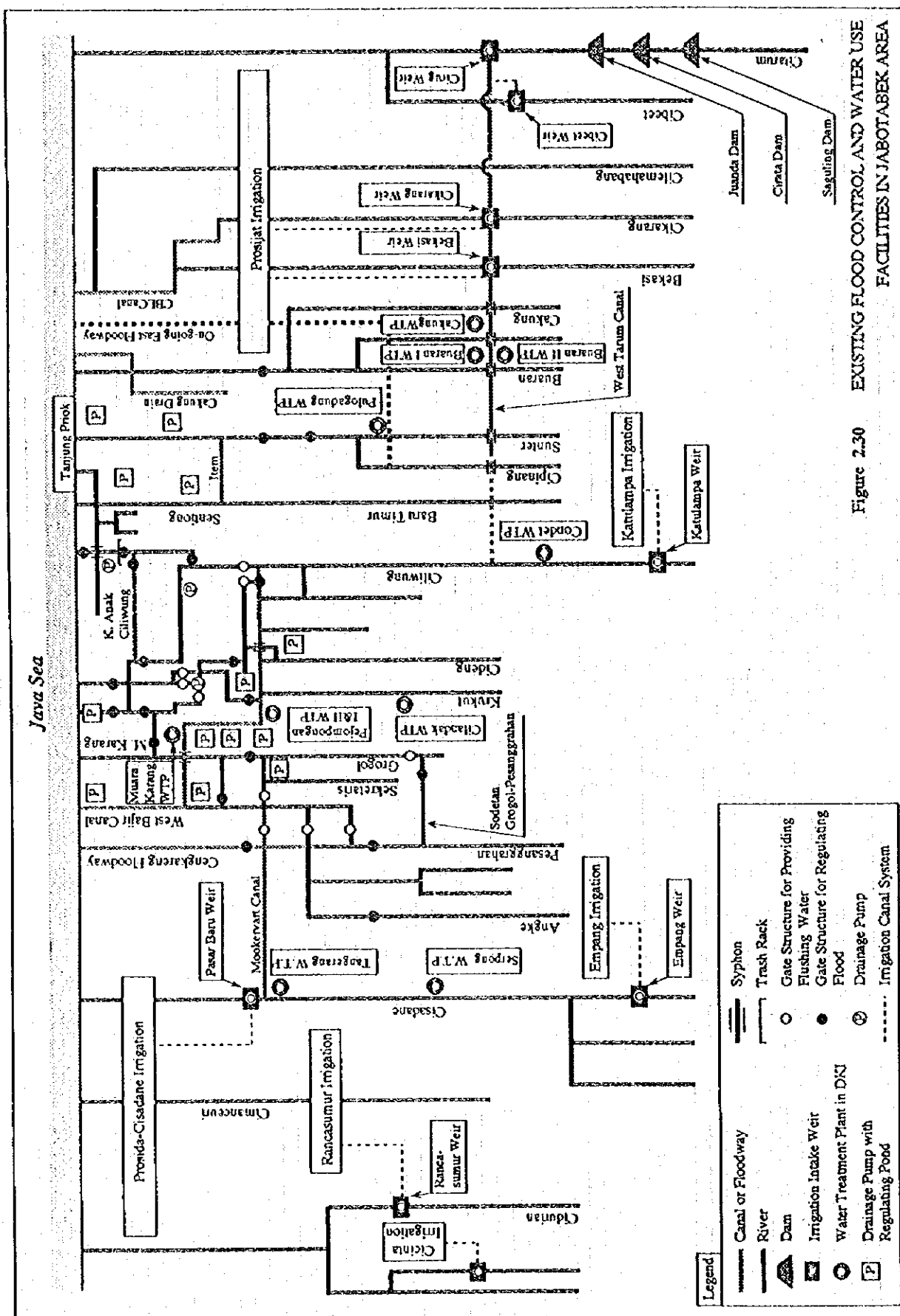
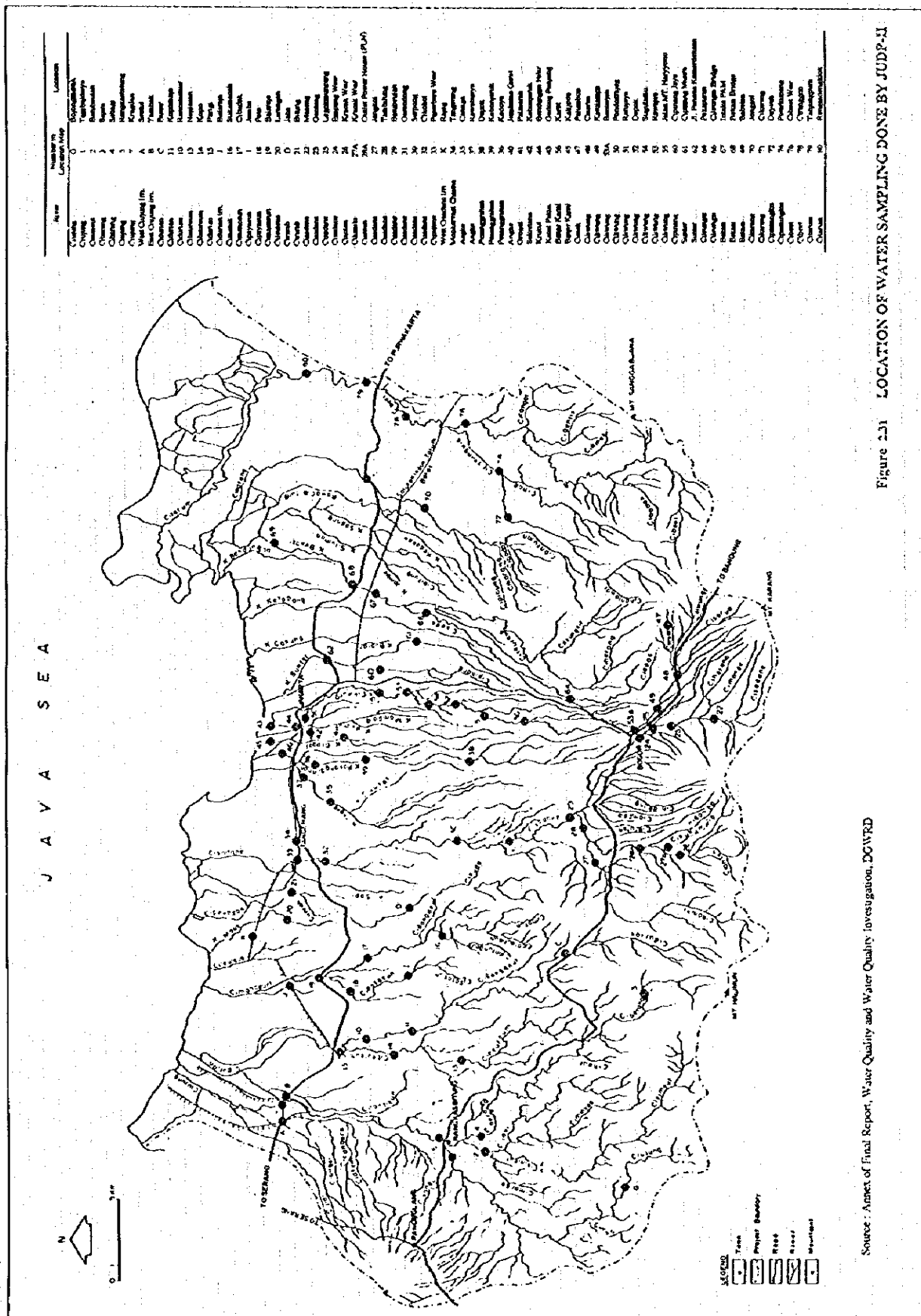


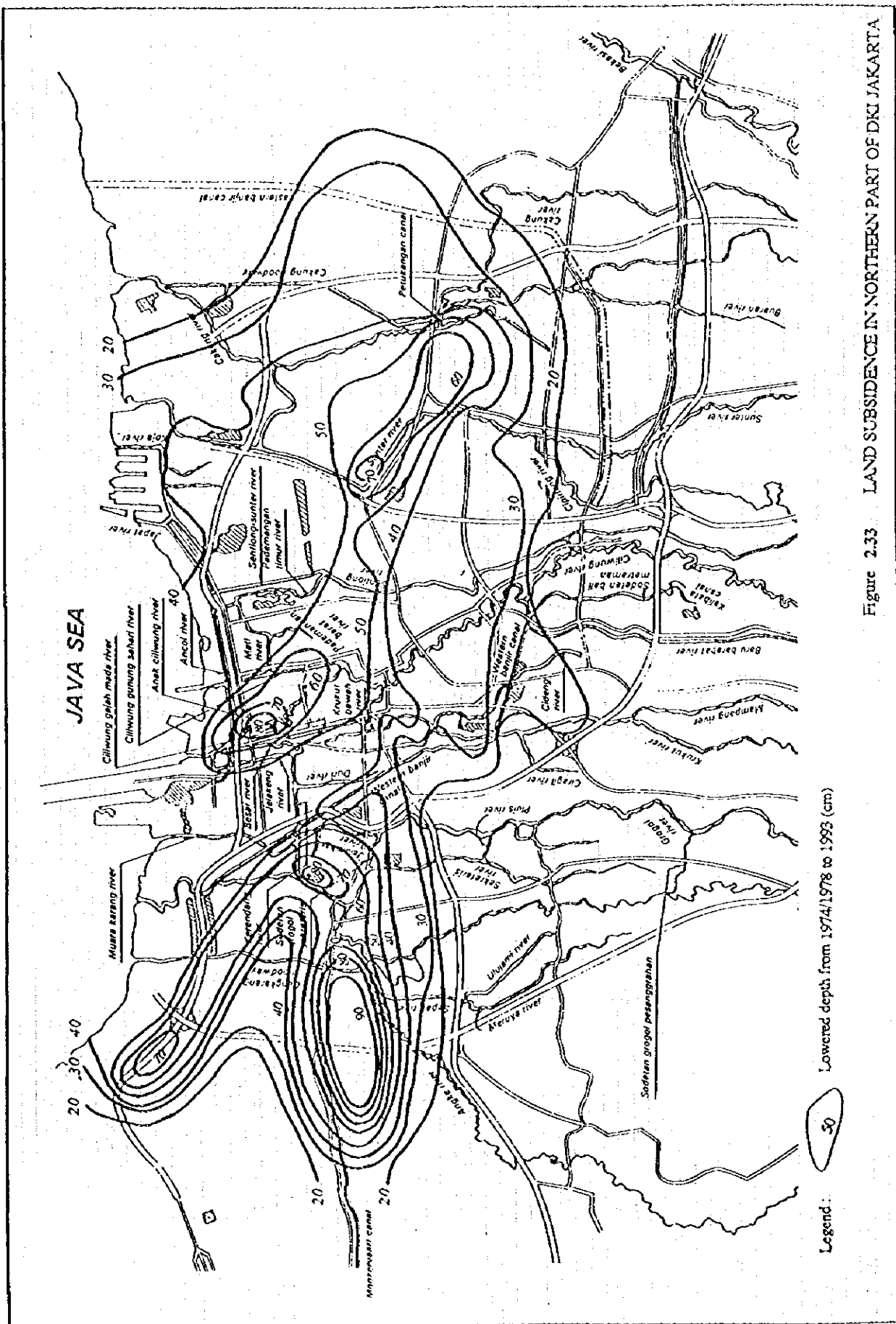
Figure 2.28

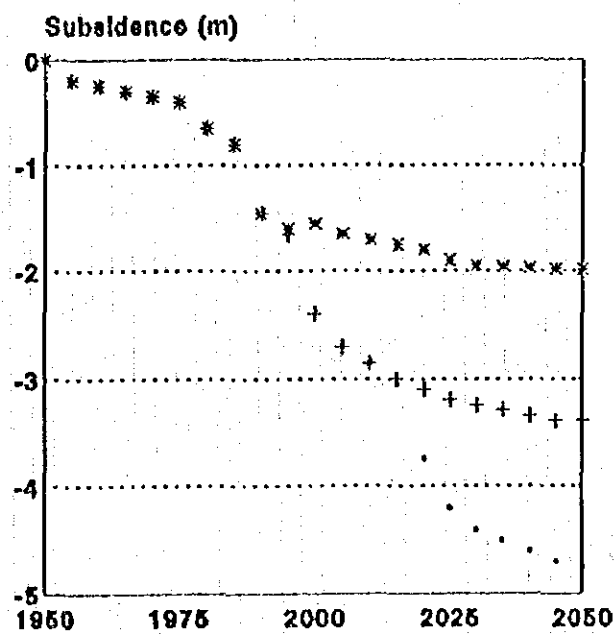
FLOOD AREA MAP IN BEKASI











• no control
 + control pumping 2016
 × stopped in 1995

Source : Final Report, JWRMS, February 1994

Figure 2.34 PREDICTED LAND SUBSIDENCE IN THE MOST VULNERABLE ZONES IN NORTHERN DKI JAKARTA

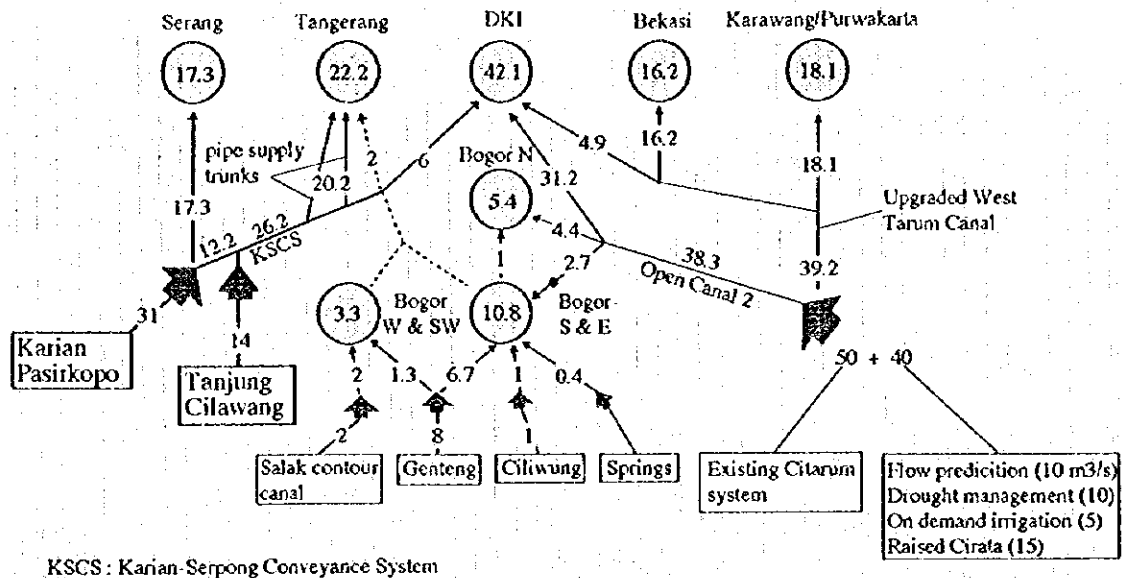
C 5

Scenario C / Strategy 5, year 2025

Identified multi-objective alternative
 - Safe drinking water sources
 - Maximum gravity supply to Bogor
 - Balanced supply to central demand zone

Legend

- (18.1) M&I water demand for Surface Water Resources
- Pumped water transport
- Water conveyance
- Return flow



A 5

Scenario A / Strategy 5, year 2025

Identified multi-objective alternative
 - Safe drinking water sources
 - Maximum gravity supply to Bogor
 - Balanced supply to central demand zone

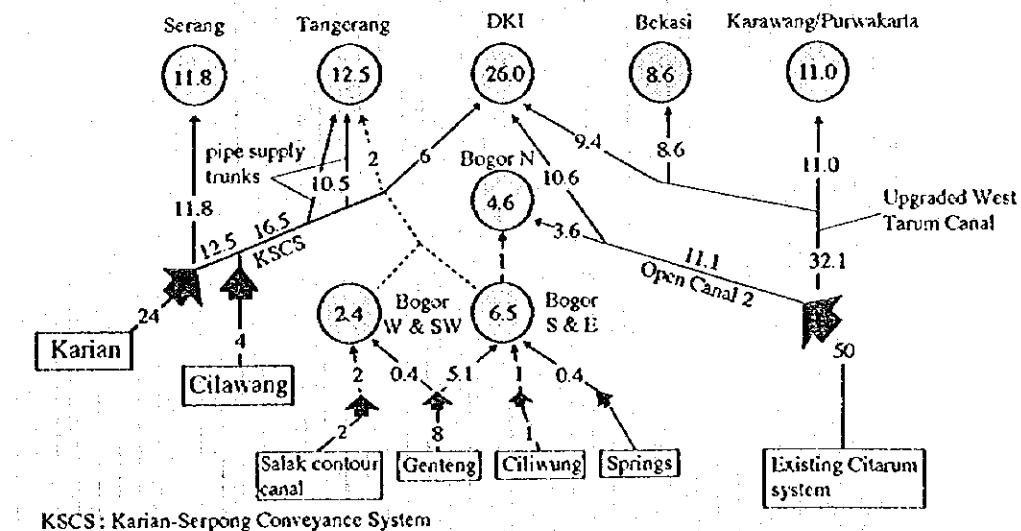
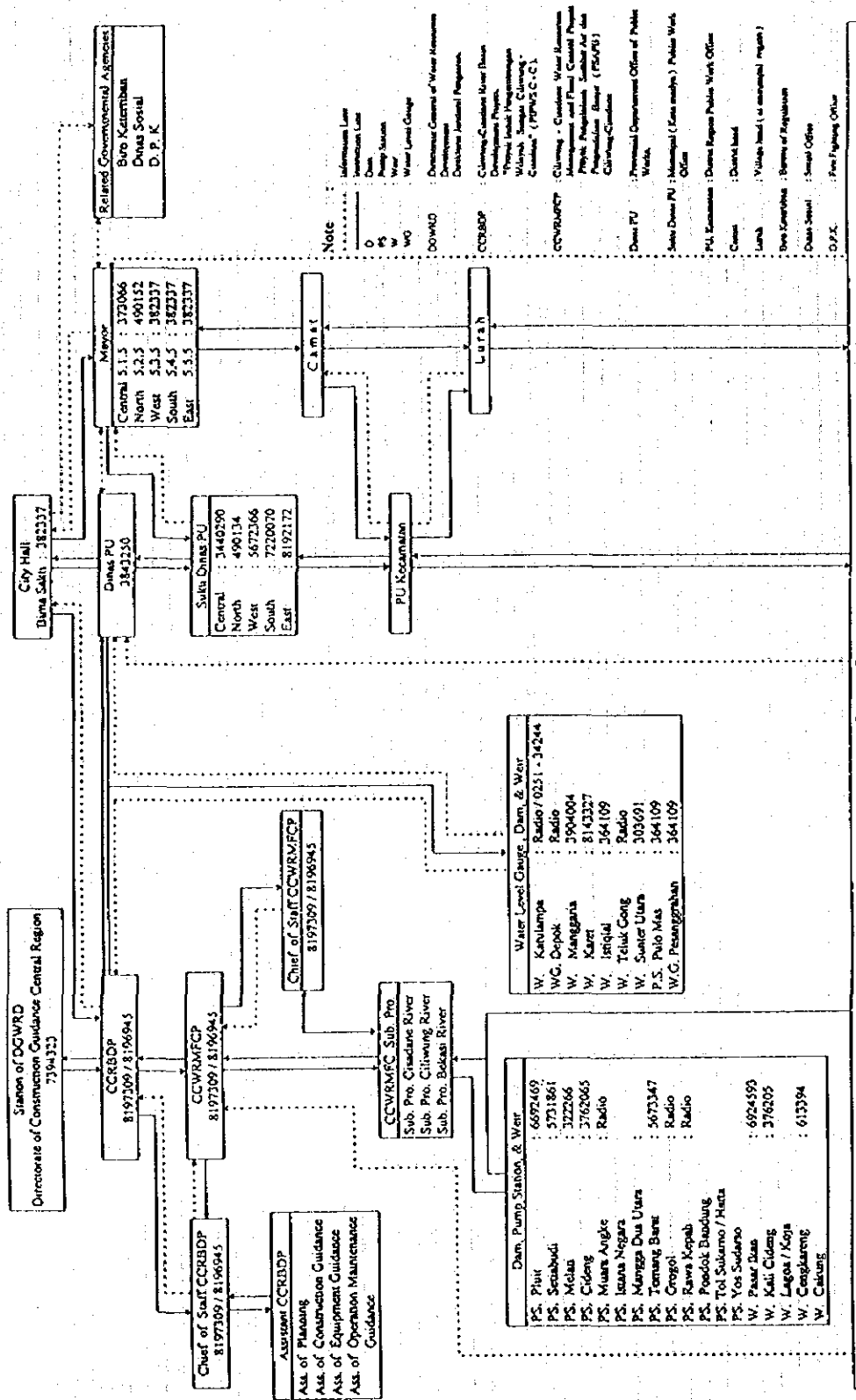


Figure 2.35 SURFACE WATER RESOURCES DEVELOPMENT STRATEGY PROPOSED BY JWRMS

**INFORMATION SYSTEM / INUNDATION REPORTING / FLOOD
AREA OF CILWUNG - CISADANE WATER RESOURCES MANAGEMENT
AND FLOOD CONTROL PROJECT (CCWRMFCP) / CILWUNG - CISADANE RIVER BASIN
DEVELOPMENT PROJECT (CCRBDP)**



P U B L I C

Figure 2.36 INFORMATION AND REPORTING SYSTEM FOR FLOOD CONTROL

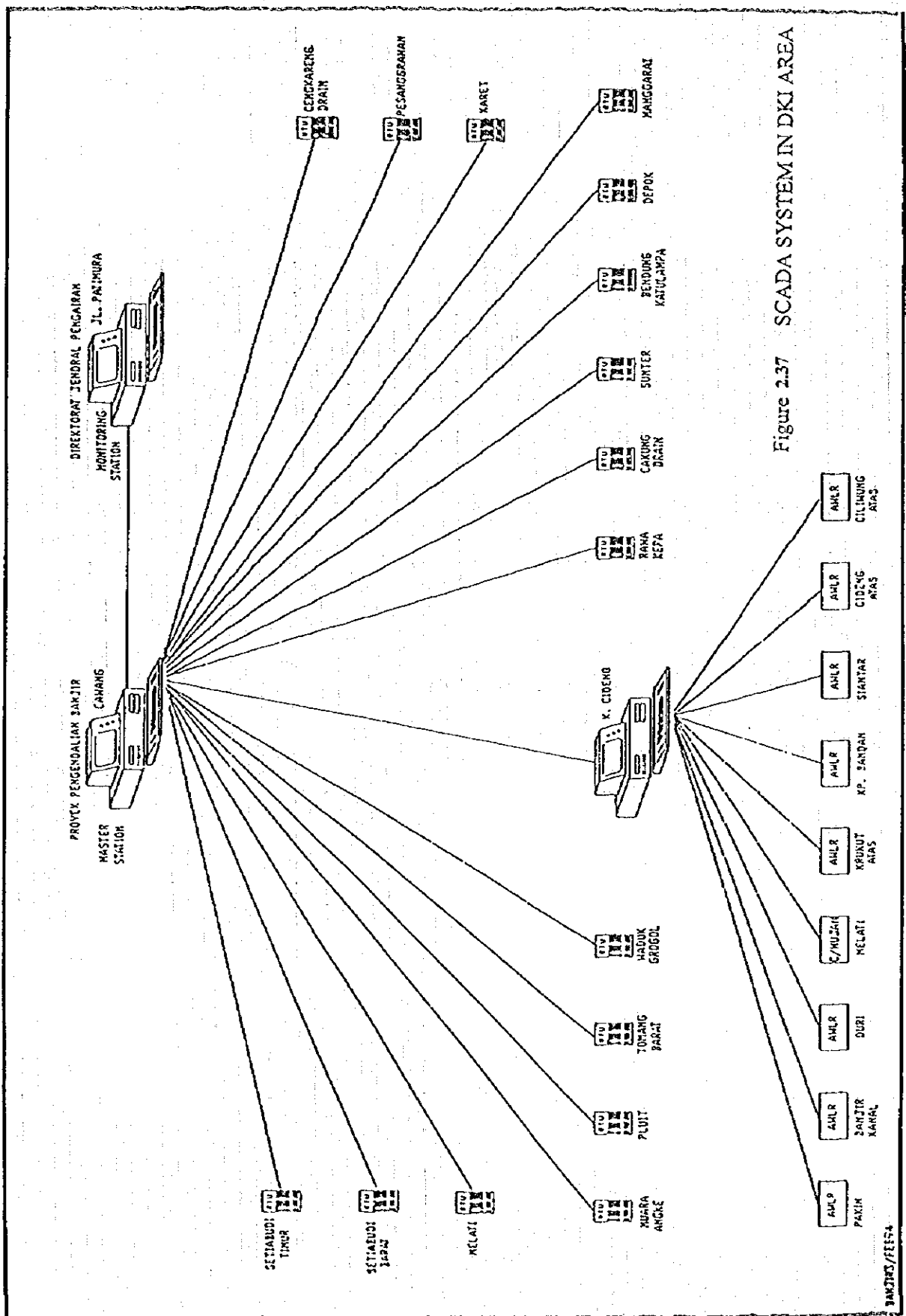


CHART OF

INTER-RELATION BETWEEN DGWR AND THE PIPWS CILWUNG - CISADANE

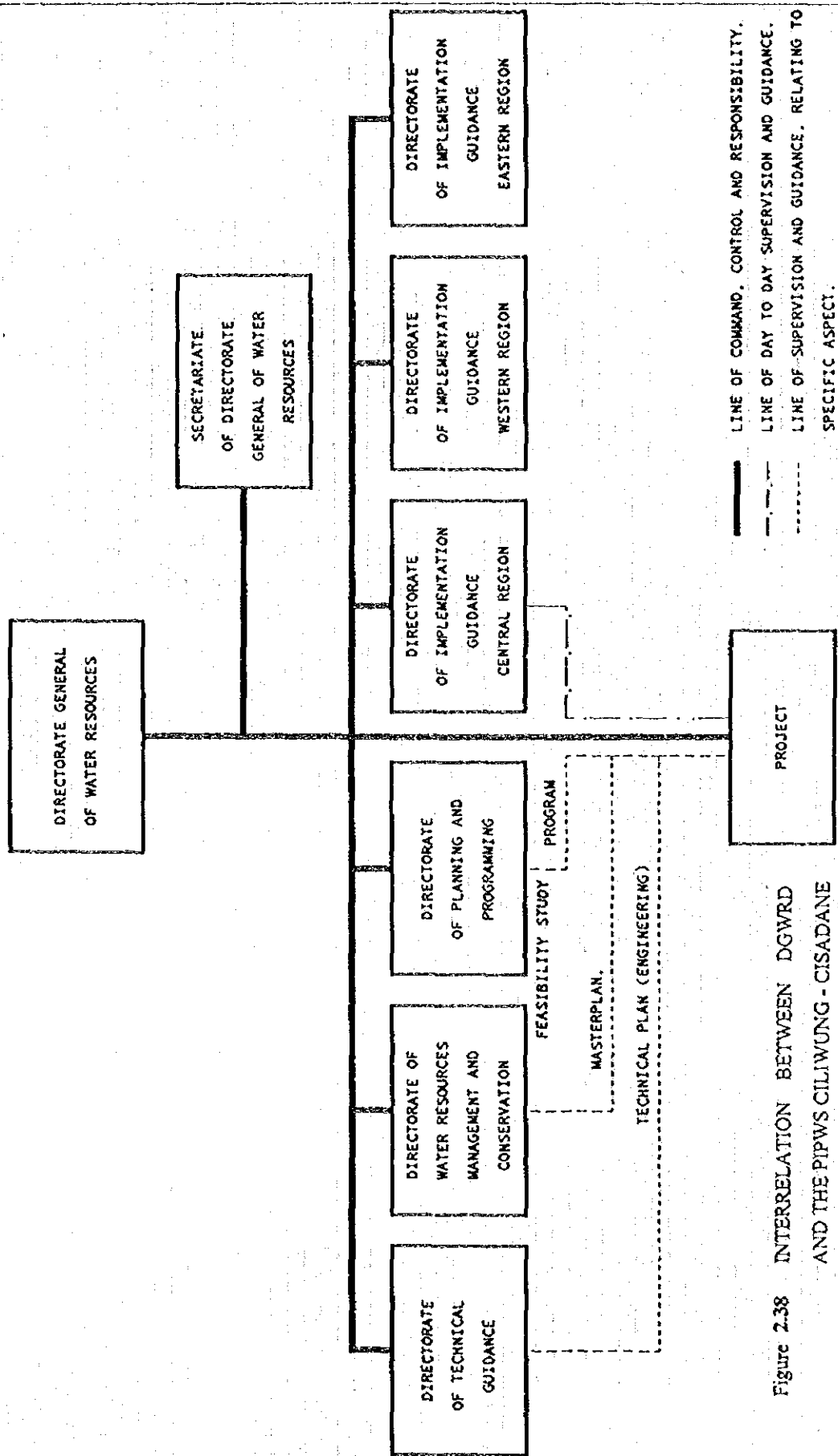





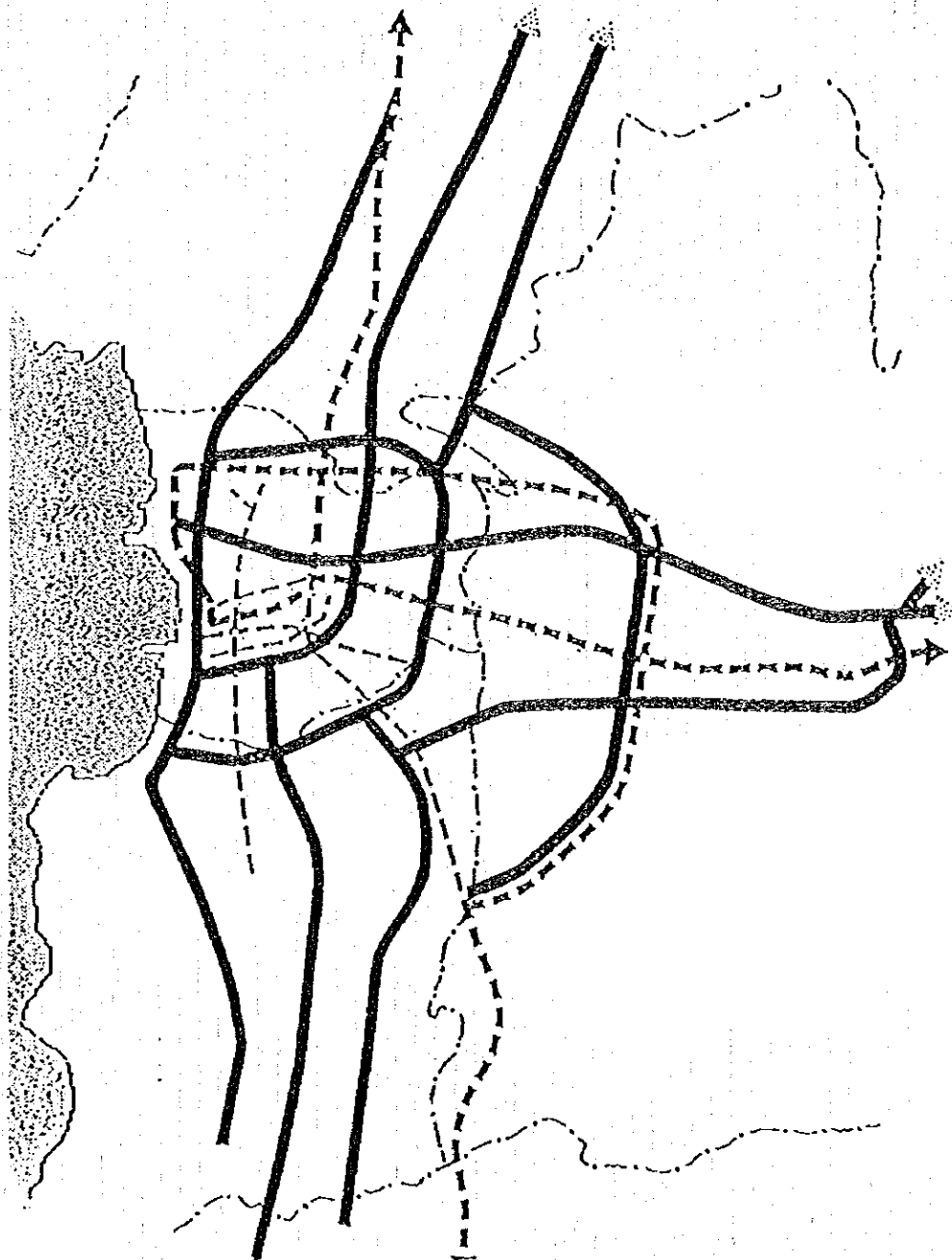
Figure 2.38 INTERRELATION BETWEEN DGWRD AND THE PIPWS CILWUNG - CISADANE

JABOTABEK METROPOLITAN
DEVELOPMENT PLAN REVIEW
1990 - 2010

LOAN 3246 - IND JUDP III : DGCK COMPONENT

-  Toll Road
-  Heavy Railway
-  Light Railway

Proposed Transport Structure



EXECUTIVE AGENCY DIRECTORATE TATA KOTA DAN
TATA DAERAH CIPTA KARYA
DEPARTEMEN PERENCANAAN UMUM
CONSULTANTS : CULPIN PLANNING LTD WITH
HUSZAR DYAMAM AND ASSOCIATES LTD
PT LENCORON AND LEMBAGA PENELITIAN
PERENCANAAN KOTA ITS

Source : Jabotabek Metropolitan Development Plan Review
Final Report : The Strategic Land Use Plan (September 1993)

Figure 3.1 PROPOSED TRANSPORT STRUCTURE (1990~2010)

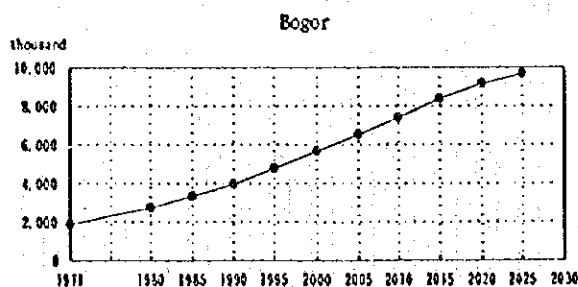
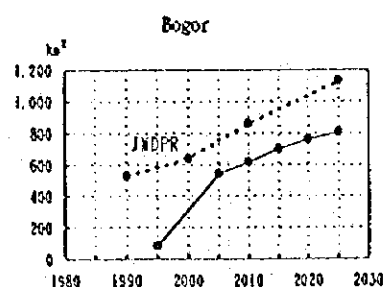
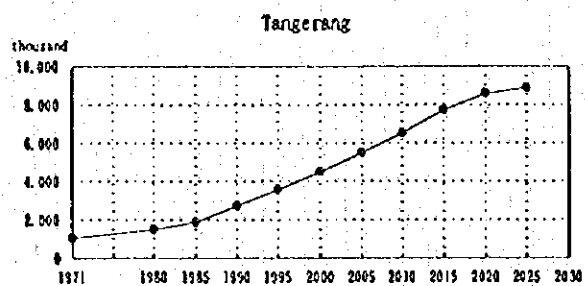
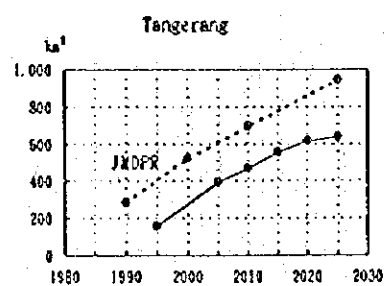
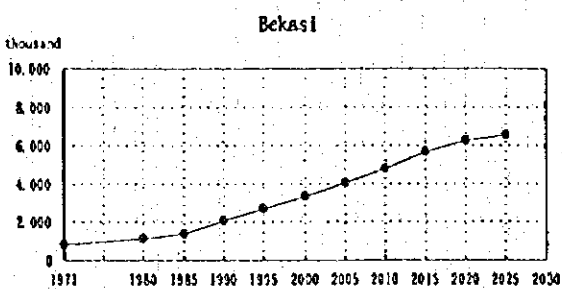
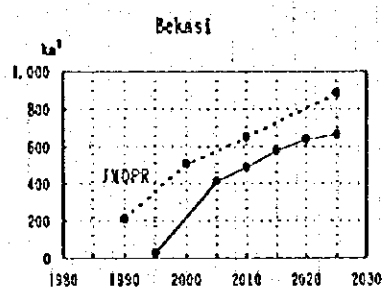
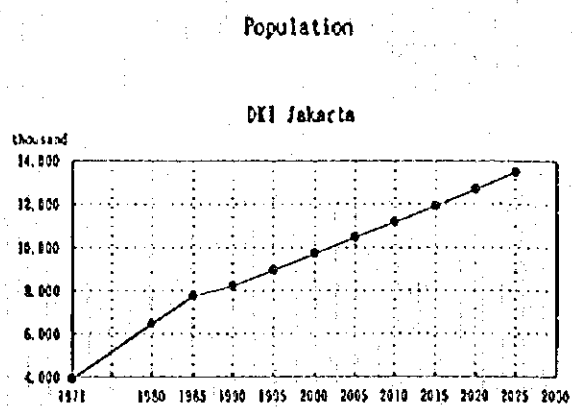
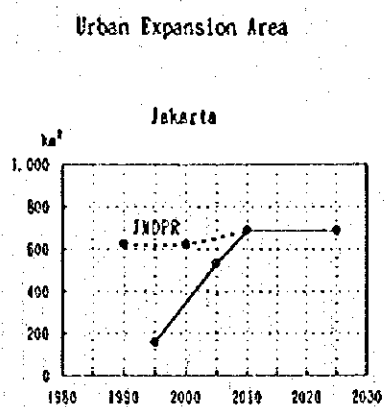


Figure 3.2 POPULATION GROWTH AND URBAN EXPANSION AREA

